

Appendix I

Special-Status Animals and Plants with Potential to Occur in the Area of Analysis

Table I-1. Special-Status Animals with Potential to Occur in the Area of Analysis

Common Name <i>Scientific Name</i>	Federal Special Status*	State Special Status*	Distribution	Habitat Association	Seasonal Occurrence	Potential Impact
Invertebrates						
Bay checkerspot butterfly <i>Euphydryas editha bayensis</i>	T	--	Historically occurred east, west, and south of SF bay, to Mt. Diablo south to Hollister. Currently, restricted to six core areas on the west and southern edges of the SF bay - SF peninsula, San Mateo County, and Santa Clara County, Any site with appropriate habitat within historic range should be considered potentially occupied (The Xerces Society 2012)	Restricted to native grasslands on outcrops of serpentine soil. The primary host plant for this butterfly is <i>Plantago erecta</i> (Dwarf plantain). Secondary host plant include <i>Othocarpus densiflorous</i> , <i>O.purpurscens</i> , and Purple owl's clover. Prefers shallow, serpentine-derived soils.	Adult present in spring. Flight season late February to early May.	None. Occurrences have been documented in the Buyer Service Area and suitable habitat may be present in the area of analysis. However, no impacts are expected to native grasslands.

Source: Appendix I, in BOR/SLDMWA 10-Year Long Term Water Transfer Final EIR/EIS

Long-Term Water Transfers
Final EIS/EIR

Common Name <i>Scientific Name</i>	Federal Special Status*	State Special Status*	Distribution	Habitat Association	Seasonal Occurrence	Potential Impact
Conservancy fairy shrimp <i>Branchinecta conservatio</i>	E	--	Northern two-thirds of the Central Valley. It ranges from Vina Plains of Tehama County; Sacramento NWR in Glenn County; Jepson Prairie Preserve and surrounding area east of Travis Air Force Base, Solano County; Mapes Ranch west of Modesto, Stanislaus County.	Inhabits the ephemeral water of swales and vernal pools. It is most commonly found in grass or mud bottomed swales, earth sump, or basalt flow depression pools in unplowed grasslands.	Has been collected from early December to early May.	None. Occurrences have been documented within the Seller Service Area. Suitable habitat occurs within the area of analysis. No impacts to vernal pool or other habitats occupied by this species are anticipated. The species is not likely to occur in rice fields and canals due to predators (i.e. fish).
Lange's metalmark butterfly <i>Apodemia mormo langei</i>	E	--	Restricted to sand dunes along the southern bank of the Sacramento-San Joaquin River. Within Contra Costa County, it is currently found only at Antioch Sand Dunes.	Inhabits stabilized dunes along the San Joaquin river and is endemic to Antioch sand dunes, Contra Costa county. The butterfly's primary host plant is <i>Eriogonum nudum var. auriculatum</i> . It feeds on nectar of other wildflowers, as well as host plant.	Breeding season is August - September, Larvae hatch during rainy months.	None. CNDDDB occurrences have been documented within the Buyer Service Area, however no impacts to sand dunes are anticipated.
Longhorn fairy shrimp <i>Branchinecta longiantenna</i>	E	--	Restricted to northern, central, and portions of southern California; populations along the eastern margin of the Central Coast Mountains from Concord, Contra Costa County south to Soda Lake in San Luis Obispo County; the Kellogg Creek watershed; the Altamont Pass area; the western and northern boundaries of Soda Lake on the Carrizo Plain; and Kesterson National Wildlife Refuge in the Central Valley.	Endemic to the eastern marring of the central coast mountains in seasonally astatic grassland vernal pools. Found in ephemeral freshwater habitats, such as vernal pools and swales.	Has been observed from late December until late April.	None. Occurrences have been documented within the Seller Service Area. Suitable habitat may occur within the area of analysis. The species is not likely to occur in rice fields and canals due to predators (i.e. fish). Transfers are not expected to impact any suitable grassland vernal pools or swales.

Special-Status Animals and Plants with Potential to Occur in the Area of Analysis

Common Name <i>Scientific Name</i>	Federal Special Status*	State Special Status*	Distribution	Habitat Association	Seasonal Occurrence	Potential Impact
San Bruno elfin butterfly <i>Callophrys mossii bayensis</i>	E	--	Found in vicinity of San Bruno mountains, San Mateo County (ESSIG 2012b).	Found in coastal, mountainous areas with grassy ground cover. Colonies are located on steep, north-facing slopes within the fog belt. Larval host plant is <i>Sedum spathulifolium</i> .	Year round	None. Occurrences have been documented in the Buyer Service Area and suitable habitat is present in the area. No impacts are anticipated to mountainous areas near San Bruno. Therefore no impacts to the species are expected.
Valley elderberry longhorn beetle <i>Desmocerus californicus dimorphus</i>	T	--	Occurs only in the Central Valley and surrounding foothills below 3,000 feet elevation (USFWS 1980).	Dependent on elderberry shrubs (host plant) as a food source. Potential habitat consists of shrubs with stems one inch in diameter within Central Valley.	Year round for host plant and exit holes; March to June for adults	None. Occurrences have been documented within the Seller Service Area. Suitable habitat may occur within the area. However, elderberry shrubs would not be impacted by transfers, therefore no impacts are anticipated to the species.
Vernal pool fairy shrimp <i>Branchinecta lynchi</i>	T	--	Endemic to the Central Valley, Central Coast Mountains, and South Coast Mountains of California. It ranges from the Vina Plains in Tehama County, through the Central Valley, and south along the Central Coast to northern Santa Barbara County.	Endemic to the grasslands of the Central Valley, central coast mountains, and south coast mountains. Inhabits the ephemeral water of swales and vernal pools. It is most commonly found in grassed or mud bottomed swales, earth sump, or basalt flow depression pools in unplowed grasslands.	Has been collected from early December to early May.	None. Occurrences have been documented in both the Buyer and the Seller Service areas. Rice fields and canals are not likely to support this species due to the presence of predators (i.e. fish), therefore no impacts are anticipated to the species. Transfers are not expected to impact vernal pools or natural wetlands.

Long-Term Water Transfers
Final EIS/EIR

Common Name <i>Scientific Name</i>	Federal Special Status*	State Special Status*	Distribution	Habitat Association	Seasonal Occurrence	Potential Impact
Vernal pool tadpole shrimp <i>Lepidurus packardii</i>	E	--	Endemic to the northern portion of the Central Valley of California. This species occurs from the Millville Plains and Stillwater Plains in Shasta County south throughout the Central Valley to Merced County.	Found in a variety of natural and artificial seasonally ponded Sacramento valley habitat types including: vernal pools, swales, ephemeral drainages, stock ponds, reservoirs, ditches, backhoe pits, and ruts caused by vehicular activities.	Has been collected from early December to early May.	None. Occurrences have been documented in both the Buyer and the Seller Service area. Suitable habitat is present in the area. Rice fields and canals are not likely to support this species due to the presence of predators (i.e. fish), therefore there is a low potential for impacts to the species. Transfers are not expected to impact vernal pools or natural wetlands. No impacts to the species are expected.
Zayante band-winged grasshopper <i>Trimerotropis infantilis</i>	E	--	Known only from Santa Cruz County. Found in local Santa Cruz mountains (the Zayanite Sand Hills ecosystem) (Santa Cruz Public Libraries 2012).	Found in isolated sandstone deposits. Inhabits mostly sand parkland habitat, but also in areas with well-developed ground cover and in sparse chaparral with grass.	Flight season from late May - Oct.	None. Occurrences have been documented in the Buyer Service Area and suitable habitat is present in the area, however, no impacts to suitable habitat are anticipated.
Amphibians						
California red-legged frog <i>Rana aurora draytonii</i>	T	SSC	Northwestern California, from Mendocino County south to northwestern Baja California. May now be extirpated in the southern Sierra Nevada; other Sierra Nevada foothill populations are small and highly localized. Nearly all current Central Valley sites are on the Coast Range slope, usually below 1,200m (3,936 ft).	Usually found in or near quiet permanent water of streams, freshwater marshes, or (less often) ponds and other quiet bodies of water; also damp woods and meadows some distance from water. Occurs in sites with dense vegetation (e.g., willows) close to water.	Year round. Little movement away from streamside habitats. Occasionally found on roads at night during winter and spring rains.	None. Suitable habitat is present within the area and occurrences of this species have been previously documented in the Buyer Service Area. Environmental Commitments would cause potential impacts to California red-legged frog to be negligible.

Special-Status Animals and Plants with Potential to Occur in the Area of Analysis

Common Name <i>Scientific Name</i>	Federal Special Status*	State Special Status*	Distribution	Habitat Association	Seasonal Occurrence	Potential Impact
California tiger salamander <i>Ambystoma californiense</i>	T ¹ , E ²	T	Found in annual grassland habitat, grassy understories of valley-foothill hardwood habitats, and uncommonly along stream courses in valley-foothill riparian habitats. Occurs from near Petaluma, Sonoma County, and east through the Central Valley to Yolo and Sacramento Counties and south to Tulare County.; and from the vicinity of San Francisco Bay south to Santa Barbara County. Occurs at elevations from 3m - 1,054m (3200ft).	Lives in vacant or mammal-occupied burrows, occasionally other underground retreats, throughout most of the year, in grassland, savanna, or open woodland habitats. Lays eggs on submerged stems and leaves, usually in shallow ephemeral or semi permanent pools and ponds that fill during heavy winter rains, sometimes in permanent ponds; breeding takes place in fish free pools and ponds.	Migrates up to two km between terrestrial habitat and breeding pond. Migrations may occur from November through April.	None. Occurrences have been documented within both the Buyer and Seller Service Areas. Suitable habitat may occur within the area, but would not be impacted by transfers. This species is not expected to occur in rice fields due to predatory fish. Existing Environmental Commitments would maintain flow and temperature in streams.
Foothill yellow-legged frog <i>Rana boylei</i>	--	SSC	This species is known from the Pacific drainages from Oregon to the upper San Gabriel River, Los Angeles County, California, including the coast ranges (west of Cascade crest) and Sierra Nevada foothills in the United States. Isolated populations in San Joaquin County on the floor of the Central Valley. Elevation range extends from near sea level to 1940m (6370ft).	This species inhabits partially shaded, rocky streams at low to moderate elevations, in areas of chaparral, open woodland, and forest. Rarely encountered far from permanent water.	Year round. Significant seasonal movements for migrations from breeding area have not been reported.	None. Occurrences have been documented within both the Buyer and Seller Service Areas. Suitable habitat is present within the area. However Transfers are not expected to impact any suitable rocky stream and woodland habitats. No impact to the species is expected.

Long-Term Water Transfers
Final EIS/EIR

Common Name <i>Scientific Name</i>	Federal Special Status*	State Special Status*	Distribution	Habitat Association	Seasonal Occurrence	Potential Impact
Western spadefoot toad <i>Spea hammondi</i>	--	SSC	This species occurs in the Central Valley and bordering foothills of California and along the Coast Ranges into northwestern Baja California, Mexico. In the Coast Ranges it is found from Point Conception, Santa Barbara County, south to Mexican border. Elevation ranges from near sea level to 1,363m (4,460 ft).	Lowlands to foothills, grasslands, open chaparral, pine-oak woodlands. Prefers short grass plains, sandy or gravelly soil. It is fossorial and breeds in temporary rain pools and slow-moving streams that do not contain bullfrogs, fish, or crayfish.	Year round. Usually in underground burrows most of year, but will travel several meters on rainy nights. Movement is rarely extensive.	None. Occurrences have been documented from both the Buyer and Seller Service Areas. Suitable habitat is present in the area. Transfers would not impact suitable upland habitat types. The species is not likely to occur in rice fields due to the presence of predatory fish, bullfrogs etc. Environmental Commitments to maintain flows will protect Western spadefoot toad.
Reptiles						
Alameda whipsnake <i>Masticophis lateralis euryxanthus</i>	T	T	Seven populations (recovery units) are known from Alameda and Contra Costa Counties, including the Mt. Diablo area and other East Bay Regional Parks, south almost to the border of Alameda and Santa Clara Counties. Likely occurred historically within San Joaquin and northern Santa Clara Counties.	The species is typically found in chaparral and scrub habitats, but it will also use adjacent grassland, oak savanna and woodland habitats. It is mostly found on south-facing slopes & ravines, with rock outcrops, deep crevices or abundant rodent burrows.	Year round.	None. Occurrences have been documented within the Buyers and Sellers Service Areas. No impacts to suitable habitat for Alameda whipsnake are anticipated.

Special-Status Animals and Plants with Potential to Occur in the Area of Analysis

Common Name <i>Scientific Name</i>	Federal Special Status*	State Special Status*	Distribution	Habitat Association	Seasonal Occurrence	Potential Impact
blunt-nosed leopard lizard <i>Gambelia sila</i>	E	E	Currently known from undeveloped land within the San Joaquin Valley and the Coast Range foothills. Historically, the blunt-nosed leopard lizard ranged from the San Joaquin Valley and foothills from Stanislaus County south to northern Santa Barbara and Ventura Counties, with observations below 800m elevation.	This species is a resident of sparsely vegetated alkali and desert scrub habitats in areas of low topographic relief. The lizard seeks cover in mammal burrows, under shrubs or structures such as fence posts.	Year round. Hibernates during winter and active from late-March - July.	None. Occurrences have been documented within the Buyer Service Area and suitable habitat is present within the area of analysis. No impacts to suitable habitat for blunt-nosed leopard lizard are anticipated.
coast horned lizard <i>Phrynosoma blainvillii</i>	--	SSC	Occurs in the Sierra Nevada foothills from Butte County to Kern County and throughout the central and southern California coast. Its elevational range extends up to 1200m (4000ft) in the Sierra Nevada foothills and up to 1800m (6000ft) in the mountains of southern California.	The species frequents a wide variety of habitats and is most commonly found in lowlands along sandy washes with scattered low bushes. It inhabits open areas for sunning, bushes for cover, patches of loose soil for burial & abundant supply of ants and other insects.	Year round.	None. Occurrences have been documented within both the Buyer and Seller Service Areas. No potential impacts to suitable habitat are anticipated.

Long-Term Water Transfers
Final EIS/EIR

Common Name <i>Scientific Name</i>	Federal Special Status*	State Special Status*	Distribution	Habitat Association	Seasonal Occurrence	Potential Impact
giant garter snake <i>Thamnophis gigas</i>	T	T	Endemic to wetlands in the Sacramento and San Joaquin Valleys from Chico, south to the Mendota Wildlife Area in Fresno County.	Marshes, sloughs, ponds, small lakes, streams and other waterways. Typically occurs in areas that provide adequate water during the active season with emergent wetland vegetation. Basking habitat consists of grassy areas or openings adjacent to aquatic habitat, and upland areas are also used for refuge from flood conditions (USFWS 2006)	Year round	High. Suitable habitat is present within the Buyer and Seller Service Areas. Suitable habitat in the Seller Service Area is intermittent based on normal variation in cropping. Direct impacts may include reduction in suitable aquatic habitat within the Seller Service Area. The greatest impact would occur during the breeding season. Conservation measures are in place to maintain aquatic habitat corridors within irrigation ditches.
San Francisco garter snake <i>Thamnophis sirtalis tetrataenia</i>	E	E	Historically occurred from north of the San Francisco-San Mateo County line south to Ano Nuevo State Reserve, west of the Santa Cruz Mountains (USFWS 2006b).	The species is found in the vicinity of freshwater marshes, ponds and slow moving streams in San Mateo county and the extreme northern Santa Cruz county. The snake prefers dense cover and water depths of at least 1ft. Upland areas near water are also very important for this species.	Year round	None. Suitable habitat may be present in a small portion of the Buyer Service Area within San Mateo County. No impacts to suitable San Francisco garter snake habitat are anticipated in association with the proposed Transfers.
San Joaquin whipsnake <i>Masticophis flagellum ruddocki</i>	--	SSC	Known from as far north as Arbuckle, Colusa County through the San Joaquin Valley and Coast Ranges south into Kern and Santa Barbara Counties.	The species is found in open, dry habitats with little or no tree cover, generally at elevations 20 - 900m. It is also found in valley grassland and saltbush scrub in the San Joaquin valley. The snake requires mammal burrows for refuge and oviposition sites.	Year round.	None. Suitable habitat is present within the Buyer Service Area in the San Joaquin Valley. There is a very low potential that this species could occur in or adjacent to agriculture within the Buyer Service Area, but no conversion of suitable habitat would occur in association with the proposed Transfers.

Special-Status Animals and Plants with Potential to Occur in the Area of Analysis

Common Name <i>Scientific Name</i>	Federal Special Status*	State Special Status*	Distribution	Habitat Association	Seasonal Occurrence	Potential Impact
Silvery legless lizard <i>Anniella pulchra pulchra</i>	--	SSC	The silvery legless lizard ranges from Antioch in Contra Costa County south through the Coast, Transverse, and Peninsular Ranges along the western edge of the Sierra Nevada Mountains. It occurs in the San Joaquin Valley and Mojave Desert down into Baja California. In the Sierra Nevada foothills it may occur at elevations up to 1,800m asl. (Contra Costa County 2006).	Sandy or loose loamy soil. May occur under sparse vegetation of beaches, chaparral, or pine-oak woodland, or near sycamores, cottonwoods, or oaks that grow on stream terraces. Often found under logs, rocks, old boards, or compacted debris of woodrat nests. Requires refugia with soil moisture during hot conditions. Agriculture and disturbed sites are not known to support the species (Contra Costa County 2006).	Year round	None. Suitable habitat is present within both the Buyer and Seller Service Areas, and previous records exist within the Buyer Service Area. Transfers are not expected to impact suitable habitat for the silvery legless lizard.
Pacific pond turtle <i>Actinemys marmorata</i>	--	SSC	Ranged from extreme western Washington and British Columbia to northern Baja California, mostly to the west of the Cascade-Sierra crest.	The western pond turtle occupies a wide variety of wetland habitats including rivers and streams (both permanent and intermittent), lakes, ponds, reservoirs, permanent and ephemeral shallow wetlands, abandoned gravel pits, stock ponds, and sewage treatment.	Year round	High. Suitable habitat occurs within the area of analysis. Pond turtles may occur in ditches, canals, rice fields, etc. Environmental Commitments would cause potential impacts to California red-legged frog to be negligible.
Birds³						
Alameda song sparrow <i>Melospiza melodia pusillula</i>	--	SSC	Endemic, restricted to fringes of south San Francisco Bay (east to El Cerrito, south to Alviso and west to San Francisco). Largest concentration near Dumbarton Point salt marsh, Alameda County.	The species is a resident of salt marshes. It inhabits salicornia marshes, nests low in grindelia bushes and in salicornia.	Year round, non-migratory. Breeds late-Feb to mid-August.	None. Occurrences have been documented within the Buyer Service Area. Suitable habitat may occur within the area of analysis. However, Transfers are not expected to impact any suitable habitat (i.e. salt marshes).

Long-Term Water Transfers
 Final EIS/EIR

Common Name <i>Scientific Name</i>	Federal Special Status*	State Special Status*	Distribution	Habitat Association	Seasonal Occurrence	Potential Impact
American peregrine falcon <i>Falco peregrinus anatum</i>	D	E, FP	Throughout California. Uncommon resident that breeds along coast north of Santa Barbara, in the Sierra Nevada, and other northern CA mountains. Migrant birds occur along the coast and the western Sierra Nevada.	Breeds in woodland, forest and coastal habitats on protected cliffs and ledges. Riparian areas and coastal and inland wetlands are important habitats yearlong especially during the non-breeding season.	Year round. Coastal migrants occur in Spring and Fall.	None. Rice fields may provide suitable foraging habitat for the species, but birds could relocate to other habitat areas in the vicinity. No nesting habitat would be affected by Transfers.
Bald eagle <i>Haliaeetus leucocephalus</i>	D	E	Throughout California. Breeding mostly in Butte, Lake, Lassen, Plumas, Shasta, Siskiyou, and Trinity counties. Winter migrant at inland waters.	Riparian areas near coasts, rivers, and lakes. Nesting generally occurs in large old-growth trees in areas with little disturbance. In flooded fields, occasionally hunts for small mammals.	Year round. Local winter movements.	None. Occurrences have been documented within both the Buyer and Seller Service Area and both areas provide suitable habitat. No impacts to suitable nesting habitat are anticipated. Rice fields represent marginal foraging habitat. Birds would be able to relocate to other suitable habitat areas in the vicinity if fields were fallowed. Environmental commitments limit the amount of land that can be fallowed in a given county.

Appendix I
Special-Status Animals and Plants with Potential to Occur in the Area of Analysis

Common Name <i>Scientific Name</i>	Federal Special Status*	State Special Status*	Distribution	Habitat Association	Seasonal Occurrence	Potential Impact
Bank swallow <i>Riparia riparia</i>	--	T	A neotropical migrant found primarily in riparian and other lowland habitats in California west of the deserts during the spring-fall period. Breeding population in California occurs along banks of the Sacramento and Feather rivers in the northern Central Valley. Casual in southern California in winter. Other colonies along the central coast from Monterey to San Mateo counties.	Requires vertical banks and cliffs with fine-textured or sandy soils near streams, rivers, ponds, lakes, and the ocean for nesting. Feeds primarily over grassland, shrub land, savannah, and open riparian areas during breeding season and over grassland, brushland, wetlands, and cropland during migration.	March-mid-September	None. Known from both the Buyer and Seller Service Areas. No suitable nesting habitat (i.e. cliffs) would be affected. There is potential that Transfers would reduce the area of cropland habitat used for foraging during migration (wetlands and croplands) due to changes in water application. However, fallow cropland would still providing suitable foraging habitat, and birds could forage at other croplands in the vicinity. Environmental commitments limit the amount of cropland idling that would occur.
black swift <i>Cypseloides niger</i>	--	SSC	Breeds locally in Sierra Nevada and Cascade range, San Gabriel, San Bernardino and San Jacinto Mts. Also in coastal bluffs and mountains from San Mateo County to San Luis Obispo County.	The bird breeds in small colonies on cliffs behind or adjacent to waterfalls in deep canyons and sea-bluffs above the surf. Found in moist crevice or cave on sea cliffs above the surf. Forage widely over many habitats. Avoids arid regions such as Great Basin, southern deserts and Central Valley.	Absent from October - April.	None. Occurrences have been documented within the Buyer Service Area. Suitable habitat may occur within the area of analysis. Habitat within the Buyers Service Area would not be affected, as water in excess of their CVP contract amount could not be procured, nor could this water be used to grow permanent crops. Therefore any change in habitat would fall within the normal range expected under their existing contracts.

Long-Term Water Transfers
Final EIS/EIR

Common Name <i>Scientific Name</i>	Federal Special Status*	State Special Status*	Distribution	Habitat Association	Seasonal Occurrence	Potential Impact
Black tern <i>Chlidonias niger</i>	--	SSC	Common spring and summer visitor to fresh emergent wetlands of California.	Uses fresh emergent wetlands, lakes, ponds, moist grasslands, and agricultural fields. In migration, some take coastal routes and forage offshore.	April-September	High. No occurrences have been documented within either the Buyer or Seller Service Areas. However, suitable habitat (i.e. rice fields) is present, and the area of analysis is within the known range for the species. Therefore it has moderate potential to occur. Water transfers could reduce suitable habitat for the species within the Seller Service Area. Conservation strategies are in place that would make potential impacts to this species to negligible.
Black-crowned night heron <i>Nycticorax nycticorax</i> (rookeries)	--	--	Year round resident and common in lowlands and foothills throughout most of California, including the Salton Sea and Colorado River areas, and very common locally in large nesting colonies. Uncommon in northwestern and rare in northeastern CA in midwinter. Uncommon in winter in southern deserts.	Feeds along the margins of lacustrine, large riverine, and fresh and saline emergent habitats. Nests and roosts in dense-foliaged trees and dense emergent wetlands.	Year round. Common nesting species from April -August.	None. No occurrences of black-crowned night heron have been documented within either the Buyer or Seller Service Areas. Suitable habitat is present in the area of analysis; however, no nesting or roosting habitats would be affected.

Special-Status Animals and Plants with Potential to Occur in the Area of Analysis

Common Name <i>Scientific Name</i>	Federal Special Status*	State Special Status*	Distribution	Habitat Association	Seasonal Occurrence	Potential Impact
cackling (=Aleutian Canada) goose <i>Branta hutchinsii leucopareia</i>	D	--	The species is found in during the winter in Del Norte County, San Francisco Bay-Delta, and South Central Valley.	Forages on natural pasture or pastures that are cultivated to grain. The species occurs on lakes, reservoirs and ponds. Preferred habitats include lacustrine, fresh emergent wetlands, moist grasslands, croplands, pastures, and meadows.	Year-round in northeastern California, except when water freezes. Wintering population in California migrates north and east to northeastern California. Winters on lakes and inland prairies.	None. Occurrences have been documented within both the Buyer and Seller Service Areas. The species distribution does not overlap with the major area where fallowing would occur. Transfers are not expected to impact breeding habitat (i.e. prefers islands in lakes).
California clapper rail <i>Rallus longirostris obsoletus</i>	E	E	Common locally around San Francisco, Monterey, and Morro bay.	Found in salt-water and brackish marshes traversed by tidal sloughs. The bird is associated with abundant growths of pickle weed, but feeds on mud-bottomed sloughs.	Year round. Non-migratory in coastal wetlands. Juveniles may disperse to freshwater wetlands late summer and autumn.	None. Occurrences have been documented within the Buyer Service Area. Suitable habitat may occur within the area of analysis. However, Transfers are not expected to impact any suitable habitat (i.e. salt-water marshes).
California horned lark <i>Eremophila alpestris actia</i>	--	WL	Found on coastal regions, chiefly from Sonoma to San Diego county, but also found in the main parts of San Joaquin Valley and east to the foothills.	Prefers short-grass prairie, mountain meadows, open coastal plains, alkali flats, "bald" hills, and fallow grain fields.	Year round in California. Some movement along the coast. May leave mountains in winter.	None. Occurrences have been documented within the Buyer Service Area. Suitable habitat occurs within the area of analysis. No impacts to breeding or foraging habitat are anticipated within the Buyer Service Area.

Long-Term Water Transfers
Final EIS/EIR

Common Name <i>Scientific Name</i>	Federal Special Status*	State Special Status*	Distribution	Habitat Association	Seasonal Occurrence	Potential Impact
California least tern <i>Sternula antillarum browni</i>	E	E	Nests along the coast from San Francisco Bay south to northern Baja California. Migratory in California. Breeding colonies in Southern California near marine and estuarine shores. In SF Bay found near salt ponds and estuarine shores.	Breeds on bare or sparsely vegetated, flat substrates, sand beaches, alkali flats, landfills or paved areas. Feeds in shallow, estuarine waters.	Late April in southern California to mid-May in northern California. Winters south of California. Absent from mid-October to late April.	None. Occurrences have been documented in the Buyer Service Area. Suitable habitat may occur within the area of analysis. No impacts are expected to suitable foraging or breeding habitat (i.e. sand beaches, alkali flats).
California yellow warbler <i>Dendroica petechia brewsteri</i>	--	SSC	Throughout California. From coastal Del Norte County., east to Modoc, south along coast range to Santa Barbara and Ventura County. Also found along western slope of Sierra Nevada to Kern County.	Frequents open to medium-density woodlands and forests with a heavy brush understory in breeding season. In migration, found in a variety of sparse to dense woodland and forest habitats. Breeds in montane chaparral, ponderosa pine and mixed conifer habitats.	April-October.	None. No occurrences have been documented in the area of analysis. The species is not likely to occur in rice fields, and no suitable habitat would be impacted (i.e. dense woodland and forest habitats).
Cooper's hawk <i>Accipiter cooperii</i>	--	WL	Throughout California. Breeds in southern Sierra Nevada foothills, New York Mountains, Owens Valley and local areas in southern California.	Frequents landscapes where wooded areas occur in patches and groves- live oak, riparian deciduous, other forest habitat near water. Often uses patchy woodlands and edges with snags for perching. Dense stands with moderate crown-depths used for nesting.	Year round. Breeding resident throughout wooded portion of California.	None. Occurrences have been documented within both the Buyer and Seller Service Area. Suitable habitat occurs within the area of analysis. No potential impacts to preferred foraging or nesting habitat are anticipated.
Double-crested cormorant <i>Phalacrocorax pelagicus</i>	--	WL	Along the entire coast of California and on inland lakes, in fresh, salt and estuarine waters. Uncommon from San Luis Obispo County south and very rare to the north. Common on Colorado River reservoirs and common in the Central Valley.	Open water with offshore rocks, islands, steep cliffs, dead branches of trees, wharfs, jetties, or even transmission lines. Requires undisturbed nest-sites beside water, on islands or mainland. Uses wide rock ledges on cliffs; rugged slopes; and live or dead trees, especially tall ones. Found on inland lakes, fresh, and estuarine waters.	Year round along coastal regions. Winters inland.	None. No occurrences have been documented within the area of analysis, but the species could occur at reservoirs and inland ponds. No negative impacts to foraging or breeding habitat are expected.

Special-Status Animals and Plants with Potential to Occur in the Area of Analysis

Common Name <i>Scientific Name</i>	Federal Special Status*	State Special Status*	Distribution	Habitat Association	Seasonal Occurrence	Potential Impact
ferruginous hawk <i>Buteo regalis</i>	--	WL	Winter resident and migrant at lower elevations and open grasslands in Modoc Plateau, Central Valley, and Coast ranges. Common winter resident of grassland and agriculture areas in southwestern California. Casual in northeast in summer.	Found in open grasslands, sagebrush flats, desert scrub, low foothills and fringes of pinyon-juniper habitats.	Migratory. Present in CA from Sept. to mid-April.	None. Occurrences have been documented within both the Buyer and Seller Service Areas. Suitable habitat occurs within the area of analysis. No potential impacts to preferred habitat are anticipated.
Golden eagle <i>Aquila chrysaetos</i>	T	E	Throughout California. Uncommon permanent resident and migrant throughout California, except of Central Valley. More common in southern California.	Riparian areas near coasts, rivers, and lakes. Nesting generally occurs in large old-growth trees in areas with little disturbance. Also in foothills, mountain areas, sage-juniper flats and desert.	Year round. Mostly resident moves down slope for winter and upslope after breeding season.	None. Occurrences have been documented within both the Buyer and Seller Service Areas. Suitable habitat occurs within the area of analysis. No impacts to nesting habitat are expected.
grasshopper sparrow <i>Ammodramus savannarum</i>	--	SSC	Uncommon and local, summer resident and breeder in foothills and lowlands west of Cascade-Sierra Nevada crest from Mendocino and Trinity counties south to San Diego County Also found in Shasta Valley, Siskiyou County, coastal southern California.	Found in dense grasslands on rolling hills, lowland plains, in valleys and on hillsides on lower mountain slopes. Favors native grasslands with a mix of grasses, forbs and scattered shrubs.	Winters chiefly in southern California, in coastal areas. Summer resident March to May, migrates south in August and September. Fall migrants occur on the Farallon Islands in late September to early October.	None. Occurrences have been documented in the Seller Service Area. Suitable habitat may occur with the area of analysis. The species' habitat (i.e. dense grassland, lowland plain areas) would not be affect by Transfers.

Long-Term Water Transfers
Final EIS/EIR

Common Name <i>Scientific Name</i>	Federal Special Status*	State Special Status*	Distribution	Habitat Association	Seasonal Occurrence	Potential Impact
Great blue heron <i>Ardea herodias</i> (rookeries)	--	--	Throughout California. Most rookeries are in southern California some scattered in northern California.	Found in shallow estuaries, fresh and saline emergent wetlands, along riverine and rocky marine shores, in croplands, pastures, salt ponds, and in mountains above foothills. Nests and roosts in large trees.	Year round. Near salt ponds from July to October. Near rookeries February to June or July.	None. Rookeries have been documented within the Buyer and Seller Service Areas. No impacts to rookeries are anticipated. Idling of cropland foraging habitat would be limited by the environmental commitments, and birds could use alternative suitable foraging areas in the vicinity.
Great egret <i>Ardea alba</i> (rookeries)	--	--	Throughout California, except for high mountains and deserts.	Feeds and rests in fresh, and saline emergent wetlands, along the margins of estuaries, lakes, and slow-moving streams, on mudflats and salt ponds, and in irrigated croplands and pastures. Nests roosts in large trees.	Year round	None. Occurrences have been documented in the Seller Service Area. No impacts to rookeries are anticipated. Idling of cropland foraging habitat would be limited by the environmental commitments, and birds could use alternative suitable foraging areas in the vicinity.
Greater sandhill crane <i>Grus canadensis tabida</i>	--	T, FP	Breeds only in Siskiyou, Modoc and Lassen counties and in Sierra Valley, Plumas and Sierra counties. Winters primarily in the Sacramento and San Joaquin valleys from Tehama south to Kings Counties.	In summer, this race occurs in and near wet meadow, shallow lacustrine, and fresh emergent wetland habitats. Frequents annual and perennial grassland habitats, moist croplands with rice or corn stubble, and open, emergent wetlands. It prefers relatively treeless plains.	Migration southward is September-October and northward is March-April.	High. No occurrences have been documented within the area of analysis, but occurrences have been recorded in Butte and Sutter Counties. Suitable foraging and winter roosting habitat is present within the area of analysis (i.e. rice fields). Conservation strategies are in place for this species and birds would have other suitable nesting sites available.

Appendix I
Special-Status Animals and Plants with Potential to Occur in the Area of Analysis

Common Name <i>Scientific Name</i>	Federal Special Status*	State Special Status*	Distribution	Habitat Association	Seasonal Occurrence	Potential Impact
Least bell's vireo <i>Vireo bellii pusillus</i>	E	E	California to northern Baja. Rare, local, summer resident below about 600m (2000ft), mostly in San Benito and Monterey counties. Present in coastal southern CA from Santa Barbara County south.	Inhabits low, dense riparian growth along water or along dry parts of intermittent streams. Typically associated with willow, cottonwood, baccharis, wild blackberry, or mesquite in desert localities.	end of March to end of August	None. Occurrences have been documented in the Buyer Service Area. Suitable habitat may occur within the area of analysis. Transfers are not expected to impact any suitable willow or dense riparian habitat, therefore no impacts to the species are anticipated.
LeConte's thrasher <i>Toxostoma lecontei</i>	--	SSC	Uncommon to rare local resident of southern California deserts from southern Mono County south to Mexican border, western and southern San Joaquin Valley. Also in Joshua tree. Formerly north to Fresno County, rare north of Kern County.	A desert resident primarily of open desert wash, desert scrub, alkali desert scrub, and desert succulent scrub habitats. Nests in dense, spiny shrub or densely branched cactus in desert wash habitat.	Year round. Non migratory.	None. CNDDDB occurrences have been documented in the Buyer Service Area. Suitable habitat is present in area of analysis. No impacts are anticipated to occur to suitable habitat (i.e. desert scrub).
Little willow flycatcher <i>Empidonax traillii brewsteri</i>	--	E	Migrant at lower elevations, primarily in riparian habitats throughout Sierra Nevada and Cascade Range. Not found in north coast.	Most numerous where extensive thickets of low, dense willows edge on wet meadows, ponds, or backwaters. Dense willow thicket required for nesting and roosting. Feeds in willow thickets or low perches adjacent to meadows.	Spring (mid-May to early June) and fall (mid-August to early September)	None. This species has not been documented within the area of analysis according to CNDDDB. Suitable habitat may be present within the area of analysis (i.e. dense willows), but would not be impacted by Transfers.
Loggerhead shrike <i>Lanius ludovicianus</i>	--	SSC	Common resident and winter visitor in lowland and foothills throughout California,. Rare on coastal slopes north of Mendocino County, occurring only in winter.	Found in broken woodlands, savannah, pinyon-juniper, Joshua tree, riparian woodlands, desert oases, scrub and washes. Prefers open country with perches for hunting, and fairly dense shrubs and brush for nesting. Rarely found in urbanized areas, but often found in open cropland.	Year round. In Great Basin, south to Inyo County, pop declines Nov.- March. Winter pop. More widespread in winter than during breeding season.	None. CNDDDB occurrences have been documented in the Buyer Service Area. Suitable habitat may be present within the area of analysis. No impacts are anticipated to breeding or foraging habitats.

Long-Term Water Transfers
Final EIS/EIR

Common Name <i>Scientific Name</i>	Federal Special Status*	State Special Status*	Distribution	Habitat Association	Seasonal Occurrence	Potential Impact
Long-billed curlew <i>Numenius americanus</i>	--	WL	Along the California coast, and in the Central and Imperial valleys.	Upland short grass prairies and wet meadows are used for nesting; coastal estuaries, open grasslands, and croplands are used in winter.	Winter migrant from July-April	Low. No CNDDDB occurrences have been documented within the area of analysis, but the species is known to occur within the action area during winter migration. There is potential for impacts to suitable foraging habitat (i.e. cropland), although this may be reduced by environmental commitments, which protect winter foraging habitat in Butte Sink, and other wildlife management areas downstream. Birds can relocate to other suitable habitats within the area.
Long-eared owl <i>Asio otus</i>	--	SSC	Throughout California, except for entire floor of the Central Valley and locally on the southern coast.	Frequents dense, riparian and live oak thickets near meadow edges, and nearby woodland and forest habitats. Also found in dense conifer stands at higher elevations.	Year round	None. Occurrences have been documented in the Buyer Service Area. Suitable habitat occurs within the area of analysis. Transfers are not expected to impact any suitable habitat (i.e. forest and woodland habitats).
Merlin <i>Falco columbarius</i>	--	WL	Occurs in most of the western half of California below 3,900 ft. Rare in Mojave Desert and Channel Islands.	Frequents coastlines, open grasslands, savannahs, woodlands, lakes, wetlands, edges, and early successional stages. Ranges from annual grasslands to ponderosa pine and montane hardwood-conifer habitats.	Winter migrant from September-May	None. CNDDDB occurrences have been documented in the Buyer Service Area. Suitable habitat is present in area of analysis. Foraging habitat may be altered, but Transfers would not decrease suitability. No negative impacts are anticipated.

Appendix I
Special-Status Animals and Plants with Potential to Occur in the Area of Analysis

Common Name <i>Scientific Name</i>	Federal Special Status*	State Special Status*	Distribution	Habitat Association	Seasonal Occurrence	Potential Impact
Mountain plover <i>Charadrius montanus</i>	--	SSC	Found in Central Valley from Sutter and Yuba counties southward, foothill valleys west of San Joaquin Valley, Imperial Valley, plowed fields of Los Angeles and western San Bernardino County, and central Colorado river valley. Does not breed in California.	Found in short grasslands, freshly plowed fields, newly sprouting grain fields, and sod farms. Prefers grazed areas and areas with burrowing rodents.	Winter resident Sept. - March.	None. Occurrences have been documented within both the Buyer and Seller Service Area. Suitable habitat occurs within the area of analysis. Foraging habitat may be affected, but Transfers would not reduce suitability. Can relocate to other habitats within the area.
Northern harrier <i>Circus cyaneus</i>	--	SSC	Throughout lowland California, concentrated in the Central Valley and coastal valleys.	Breeds in annual grasslands and wetlands. Prefers marshes and grasslands for foraging and nesting. Also uses agricultural fields for nesting and foraging, although nests may be destroyed by agricultural activities.	Year round, nomadic	None. CNDDDB occurrences have been documented in the Buyer Service Area. Suitable habitat is present in area of analysis. Foraging and breeding habitat may be affected, but fallow fields would still represent suitable habitat. Birds can relocate to other habitats within the area.
Osprey <i>Pandion haliaetus</i>	--	WL	Northern California from Cascade Ranges south to Lake Tahoe, and along the coast south to Marin County.	Associated strictly with large, fish-bearing waters, primarily in ponderosa pine through mixed conifer habitats.	Year round	None. Occurrences have been documented within both the Buyer and Seller Service Area. Suitable habitat occurs within the area of analysis. Water transfers would be subject to flow requirements. Therefore no impacts to foraging area expected. No impacts to nesting sites are anticipated.

Long-Term Water Transfers
Final EIS/EIR

Common Name <i>Scientific Name</i>	Federal Special Status*	State Special Status*	Distribution	Habitat Association	Seasonal Occurrence	Potential Impact
prairie falcon <i>Falco mexicanus</i>	--	WL	Found from southeastern deserts northwest throughout Central Valley and inner Coast Ranges and Sierra Nevada. Mostly absent from northern coastal fog belt. Not found in upper elevation of Sierra Nevada.	Inhabits dry, open level or hilly terrain. Breeds on cliffs, forages far afield. Annual grassland to alpine meadows, but primarily perennial grasslands, rangeland, agricultural fields and desert scrub.	Permanent resident. Northern migrants winter in California. Upslope in summer, down slope in winter.	None. CNDDDB occurrences have been documented in the Buyer Service Area. Suitable habitat is present within the area of analysis. Foraging habitat (i.e. agricultural fields) may be altered, but Transfers would not reduce suitability.
purple martin <i>Progne subis</i>	--	SSC	In south, found on the coast and interior mountain ranges. Absent from higher desert regions. In north, found on coast and inland to Modoc and Lassen counties. Absent from higher slopes of Sierra Nevada. Current breeding populations are known from western Santa Clara and Alameda counties, and western Placer County.	Inhabits woodlands, low elevation coniferous forest of Douglas-fir, ponderosa pine and Monterey pine. Uses open habitats during migration, including grassland, wet meadows, and fresh emergent wetlands.	Summer resident throughout California.	Low. CNDDDB occurrences have been documented in the Seller Service Area. This species is restricted to fairly limited nesting sites with suitable cavities free of brood parasites. When wetlands are unavailable, rice fields may represent relatively high quality foraging habitat. This habitat may be slightly reduced by Transfers, but the species can relocate to other suitable habitat in the vicinity. Crop idling limitations are in place in the environmental commitments.
saltmarsh common yellowthroat <i>Geothlypis trichas sinuosa</i>	--	SSC	Resident and summer visitor in San Francisco Bay area. Winter south along coast to San Diego county. Found in No. CA in summer months.	Found in fresh and salt water marshes. Requires thick, continuous cover to water surface for foraging and tall grasses, tulle and willows for nesting.	Year-round in southern California and San Francisco Bay, Summer resident in northern California.	None. Occurrences have been documented in the Buyer Service area and suitable habitat may be present in the area of analysis. Not known from rice fields. Water transfers would not affect suitable breeding or foraging habitat.

Special-Status Animals and Plants with Potential to Occur in the Area of Analysis

Common Name <i>Scientific Name</i>	Federal Special Status*	State Special Status*	Distribution	Habitat Association	Seasonal Occurrence	Potential Impact
San Pablo song sparrow <i>Melospiza melodia samuelis</i>	--	SSC	Confined to emergent wetland along north side of San Francisco and San Pablo bay. Highest density at Petaluma River mouth.	A resident of salt marshes. The species inhabits tidal sloughs in salicornia marshes and nests in grindelia bordering slough channels.	Year round	None. Occurrences have been documented in the Buyer Service area and suitable habitat may be present in the area of analysis. However, no impacts are expected to salt water marshes.
Short-eared owl <i>Asio flammeus</i>	--	SSC	Endemic to marshes bordering the San Francisco, San Pablo Bays and Suisun Bay. Winter migrant in Central Valley, western Sierra Nevada foothills and coastline. Uncommon winter migrant in southern California. Breeding range includes: Del Norte, Humboldt, SF Bay Delta, northeastern Modoc plateau, south Lake Tahoe to Inyo County and San Joaquin valley.	Usually found in open areas with few trees, including grasslands, wet meadows, irrigated lands, saline and fresh emergent wetlands, and cleared forests. Occasionally in estuaries during breeding season. Ground nester in tall grasses, brush, ditches, and wetlands.	Year round. Migrants in CA from Sept. - April.	None. Occurrences have been documented in the Buyer Service Area. Suitable habitat occurs within the area of analysis. No impacts to breeding habitat would occur. Fallow rice fields would still represent suitable foraging habitat for the species.
Snowy egret <i>Egretta thula</i> (rookeries)	--	--	Throughout California.	Found along shores of coastal estuaries, fresh and saline emergent wetlands, ponds, slow-moving rivers, irrigation ditches, and wet fields.	Year round	None. Occurrences have been documented in the Buyer Service Area, however suitable habitat is present in both the Buyer and Seller Service area. No impacts to rookeries are anticipated. Idling of cropland foraging habitat would be limited by the environmental commitments, and birds could use alternative suitable foraging areas in the vicinity.

Long-Term Water Transfers
Final EIS/EIR

Common Name <i>Scientific Name</i>	Federal Special Status*	State Special Status*	Distribution	Habitat Association	Seasonal Occurrence	Potential Impact
Suisun song sparrow <i>Melospiza melodia maxillaris</i>	--	SSC	Endemic, restrict to Suisun Marsh from Carquinez Strait east to the confluence of the Sacramento and San Joaquin rivers near Antioch. Highest numbers near Benicia State Park and Martinez shoreline.	Resident of brackish-water marshes. Inhabits cattails, tules, sedges, and salicornia.	Year round. Non-migratory. Breeds early March to July.	None. Occurrences have been documented in the Buyer Service area and suitable habitat may be present in the area of analysis. However, no impacts are expected to brackish-water marshes.
Swainson's hawk <i>Buteo swainsoni</i>	--	T	Lower Sacramento and San Joaquin Valleys, the Klamath Basin, Northeastern plateau, Lassen County, and Mojave desert.	Nests in mature trees, including valley oaks or cottonwoods in or near riparian habitats; forages in grasslands, irrigated pastures, and grain and row crop fields.	Spring and summer resident; small wintering population in the Delta. Moves south to southern and interior CA Sept.-Oct. Moves north March-May.	None. CNDDDB occurrences have been documented within both the Seller and Buyer Service Area. Suitable habitat is present within the area of analysis. Transfers may alter the composition of foraging habitat in the Buyer and Seller Service Areas, but these areas would still be suitable for the species, and additional habitats in the vicinity would be available. No impacts to breeding habitat are expected.
Tricolored blackbird <i>Agelaius tricolor</i>	--	SSC	A resident in California found throughout the Central Valley and in coastal districts from Sonoma County south. Found locally in northeastern California,. In winter, more widespread along central coast and San Francisco Bay area.	Breeds near fresh water, preferably in emergent wetlands with tall, dense cattails or tules, but also in thickets of willow, blackberry, wild rose, tall herbs. Feeds in grassland and cropland habitats.	Year round. Leaves northeastern CA in fall and winter.	Low. CNDDDB occurrences have been documented within both the Seller and Buyer Service Area. Suitable habitat is present within the area of analysis. Foraging habitat may be affected by Transfers. Environmental commitments limit cropland idling and birds can relocate to other adjacent foraging habitats within the area.

Appendix I
Special-Status Animals and Plants with Potential to Occur in the Area of Analysis

Common Name <i>Scientific Name</i>	Federal Special Status*	State Special Status*	Distribution	Habitat Association	Seasonal Occurrence	Potential Impact
Western burrowing owl <i>Athene cunicularia hypugaea</i>	--	SSC	Central and southern coastal habitats, Central Valley, Great Basin, and deserts. Formerly common in appropriate habitat throughout the state, excluding humid northwest coastal forests and high mountains. Present on larger offshore islands.	Open annual grasslands or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Dependent upon burrowing mammals (especially California ground squirrel) for burrows.	Year round	None. Occurrences have been documented within both the Buyer and Seller Service Area. Suitable habitat occurs within the area of analysis. Agricultural ditches may be suitable habitat for burrowing owl burrow and nesting activity. Water transfers would not affect the suitability of habitat for burrowing owl in the area of analysis.
Western snowy plover <i>Charadrius alexandrinus</i>	T	SSC	Along the west coast states, with inland nesting taking place at the Salton Sea, Mono Lake, and at isolated sites on the shores of alkali lakes in northeastern California, in the Central Valley, and southeastern deserts.	Nests, feeds, and takes cover on sandy or gravelly beaches along the coast, on estuarine salt ponds, alkali lakes, and at the Salton Sea.	Migration is from July-March (some year round populations).	None. Occurrences have been documented in the Buyer Service Area. There is a CNDDDB occurrence in Yolo County, however this species is not likely to occur in rice fields. Suitable habitat may occur within the area of analysis. However Transfers are not expected to impact any suitable breeding or foraging habitat (i.e. sandy beaches or estuarine salt ponds).
Western yellow-billed cuckoo <i>Coccyzus americanus</i>	C,	E	Uncommon to rare summer resident in scattered locations throughout California. Breeding population along Colorado river, Sacramento and Owen Valley, along South Fork of Kern River, Santa Ana River and Amargosa River. May be present along San Luis Rey River.	Deciduous riparian thickets or forests with dense, low-level or understory foliage, and which abut on slow-moving watercourses, backwaters, or seeps. Willow almost always a dominant component of the vegetation. In Sacramento Valley, also utilizes adjacent orchards, especially of walnut. Nests in sites with some willows, dense low-level or understory foliage, high humidity, and wooded foraging spaces.	Summer migration is from June-September.	None. Occurrences have been documented in the Seller Service Area. Suitable habitat is present within the area of analysis. However this species is not likely to occur in rice fields due to lack of suitable foraging and roosting habitat (i.e. dense riparian thickets). No impacts are anticipated.

Long-Term Water Transfers
Final EIS/EIR

Common Name <i>Scientific Name</i>	Federal Special Status*	State Special Status*	Distribution	Habitat Association	Seasonal Occurrence	Potential Impact
White-faced ibis <i>Plegadis chihi</i>	--	WL	Uncommon summer resident in sections of southern California, a rare visitor in the Central Valley, and is more widespread in migration. Uncommon to common in small pockets.	Feeds in fresh emergent wetlands, shallow lacustrine waters, muddy grounds of wet meadows, and irrigated or flooded pastures and croplands. Nests in dense, fresh emergent wetlands.	Present from April-October.	Low. Occurrences have been documented in the Seller Service Area. Suitable habitat is present in area of analysis. Low potential impact to foraging habitat in the Seller Service Area. No potential impacts are expected to roosting habitat. Can relocate to other habitats within the area. Environmental commitments would limit acreage of allowable cropland idling.
White-tailed kite <i>Elanus leucurus</i>	--	FP	Central Valley, coastal valleys, San Francisco Bay area, and low foothills of Sierra Nevada.	Savanna, open woodlands, marshes, partially cleared lands and cultivated fields, mostly in lowland situations. Rarely found away from agricultural areas. Feeds in open grasslands, meadows, farmlands and emergent wetlands. Nests located near open foraging area and placed on top of dense oak, willow or tree stands.	Year round	None. CNDDDB occurrences have been documented within both the Seller and Buyer Service Area. Suitable habitat is present within the area of analysis. Foraging habitat may be altered, but would still be suitable for the species. No potential impacts to breeding habitat are anticipated.
yellow warbler <i>Dendroica petechia brewsteri</i>	--	SSC	Breeding range from coastal Del Norte County, east to Modoc plateau & Inyo County, south to coastal Santa Barbara and Ventura County., west to Kern County. Winters in Imperial and Colorado river valleys. Found up to 2500m (8000ft) in Sierra Nevada.	Associates with riparian habitats and prefers willows, cottonwood, aspens, sycamores, and alders. Nests in montane shrubbery in open conifer forests.	Summer resident throughout California.	None. Occurrences have been documented in the Buyer Service Area and suitable habitat is present with the area of analysis. No potential impacts are anticipated to riparian habitats.

Appendix I
Special-Status Animals and Plants with Potential to Occur in the Area of Analysis

Common Name <i>Scientific Name</i>	Federal Special Status*	State Special Status*	Distribution	Habitat Association	Seasonal Occurrence	Potential Impact
yellow-headed blackbird <i>Xanthocephalus xanthocephalus</i>	--	SSC	Breeds east of Cascade range and Sierra Nevada, Imperial and Colorado River valley, in Central Valley and select locations in coast range west of Central Valley. Common in winter in Imperial Valley. Found as high as 2000m (6600ft) in San Bernardino Mountains.	Associated with freshwater emergent wetlands along lakes and ponds. Nesting timed with maximum emergence of aquatic insects. Feeds on cultivated grains, in emergent vegetation, and in nearby grasslands and croplands.	Year round, in parts of Central Valley. Summer range in eastern California, and parts of Central Valley. Present April through early May, and in September.	Low. Occurrences have been documented in the Buyer Service Area and suitable habitat is present within both the Buyer and Seller Service Area. Impacts to foraging habitat are expected in the Seller Service Area, but the birds can relocate to other habitat in the area. Environmental commitments would limit the amount of cropland idling in the area of analysis.
Mammals						
Alameda Island mole <i>Scapanus latimanus parvus</i>	--	WL	Only known from Alameda Island, Alameda County.	Found in a variety of habitats, especially annual and perennial grasslands. Prefers moist, friable soils and avoids flooded soils.	Year round	None. Occurrences have been documented in the Buyer Service Area. Transfers would not impact suitable habitat.
American badger <i>Taxidea taxus</i>	--	SSC	Throughout California.	Found in dry, open stages of most shrub, forest, and herbaceous habitats with friable soils.	Year round. Permanent resident except in North Coast area.	None. Occurrences have been documented in both the Buyer and Seller Service area and suitable habitat is present within the area of analysis. Suitable habitats are not expected to be impacted.
big free-tailed bat <i>Nyctinomops macrotis</i>	--	SSC	Rare in California. Vagrants found in San Diego County. and Alameda County (record is suspect).	Found in low-laying arid areas in Southern California and requires high cliffs or rocky outcrops for roosting sites.	Year round resident in San Diego County and Alameda County.	None. Occurrences have been documented in the Buyer Service Area and suitable habitat may be present in the area of analysis. Transfers would not impact suitable arid, rocky terrain habitat.

Long-Term Water Transfers
Final EIS/EIR

Common Name <i>Scientific Name</i>	Federal Special Status*	State Special Status*	Distribution	Habitat Association	Seasonal Occurrence	Potential Impact
California wolverine <i>Gulo gulo</i>	PT	T, FP	A scarce resident of North Coast mountains and Sierra Nevada. Sightings range from Del Norte and Trinity counties. east through Siskiyou and Shasta counties., and south through Tulare County. A few possible sightings occur in the north coastal region as far south as Lake County. Habitat distribution in California is poorly known for the North Coast and northern Sierra Nevada.	In north coastal areas, has been observed in Douglas-fir and mixed conifer habitats. In the northern Sierra Nevada, have been found in mixed conifer, red fir, and lodge pole habitats, and probably use subalpine conifer, alpine dwarf-shrub, wet meadow, and montane riparian habitats. In the southern Sierra Nevada occur in red fir, mixed conifer, lodge pole, subalpine conifer, alpine dwarf-shrub, barren, and probably wet meadows, montane chaparral, and Jeffrey pine.	Year round (largely nocturnal)	None. Suitable habitat may occur within the area of analysis, however no CNDDDB occurrences have been documented in the Buyer or Seller Service area. The species is not likely to occur in agriculture fields. No impacts are anticipated.
Fresno kangaroo rat <i>Dipodomys nitratoides exilis</i>	E	E	Western Fresno County. on the Alkali Sink Ecological Reserve and adjacent privately owned land.	Found in alkali sink-open grassland habitats. Prefers bare alkaline clay-based soils subject to seasonal inundation with more friable soil mounds around shrubs and grasses.	Year round. Breeds largely from March - June.	None. Occurrences have been documented in the Buyer Service Area. Suitable habitat present in the area of analysis. Transfers would not impact suitable habitat for this species (i.e. alkali sink grasslands).
giant kangaroo rat <i>Dipodomys ingens</i>	E	E	Found along western side of San Joaquin Valley (e.g. Carrizo Plain, Panoche Valley)	Found in annual grasslands and on and marginal habitat in alkali scrub. The species requires level terrain and sandy loam soils for burrowing.	Year round	None. Occurrences have been documented in the Buyer Service Area. Suitable habitat may be present in the area of analysis. However, no impacts are expected to suitable habitat (i.e. alkali desert scrub and annual grasslands).

Appendix I
Special-Status Animals and Plants with Potential to Occur in the Area of Analysis

Common Name <i>Scientific Name</i>	Federal Special Status*	State Special Status*	Distribution	Habitat Association	Seasonal Occurrence	Potential Impact
Greater western mastiff bat <i>Eumops perotis californicus</i>	--	SSC	Uncommon resident in southeastern San Joaquin Valley and Coastal Ranges from Monterey County southward through southern California, from the coast eastward to the Colorado Desert.	Occurs in many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, annual and perennial grasslands, palm oases, chaparral, desert scrub, and urban areas. Crevices in cliff faces, high buildings, trees, and tunnels are required for roosting.	Year round (nocturnal activity)	None. Occurrences have been documented in the Seller Service Area. Suitable habitat is present in the area of analysis, but no impacts are anticipated.
Nelson's antelope squirrel <i>Ammospermophilus nelsoni</i>	--	T	Found in the western San Joaquin valley from 200-1,200 ft. elevation. Found from southern Merced County to Kern, Kings and Tulare counties. In eastern portions of San Luis Obispo and Santa Barbara counties.	Found on dry sparsely vegetated loam soils. Requires widely scattered shrubs, forbs and grasses in broken terrain with gullies and washes.	Year round.	None. Occurrences have been documented with the Buyer Service Area. Suitable habitat may occur within the area of analysis. No impacts are anticipated to suitable upland habitats.
Pacific fisher <i>Martes pennati (pacifica) DPS</i>	C	SSC	Northern California coastal ranges up to Oregon, and the Sierra Nevada's.	Found in mature, dense, coniferous or mixed coniferous hardwood forest with closed canopies.	Year round	None. Occurrences have been documented with the Seller Service Area. Suitable habitat may occur within the area of analysis. No potential impacts are anticipated to suitable habitat (i.e. mixed conifer habitats).
pallid bat <i>Antrozous pallidus</i>	--	SC	Throughout California,, except for high Sierra Nevada from Shasta to Kern counties, northwestern corner of state from Del Norte & western Siskiyou cos. To northern Mendocino County.	Found in deserts, grasslands, scrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting.	Year round.	None. Occurrences have been documented with the Buyer Service Area. Suitable habitat may occur within the area of analysis. No impacts would occur to suitable habitat.

Long-Term Water Transfers
Final EIS/EIR

Common Name <i>Scientific Name</i>	Federal Special Status*	State Special Status*	Distribution	Habitat Association	Seasonal Occurrence	Potential Impact
Ring-tailed cat <i>Brassariscus astutus</i>	--	FP	Ringtails are found in a variety of habitats centered around the semi-arid to arid climates of the west and southwest. Little information available on distribution and relative abundance among habitats.	Occurs in various riparian habitats, and in brush stands of most forest and shrub habitats, at low to middle elevations. Uses hollow trees, logs, snags, cavities in talus and other rocky areas, and other recesses are for cover.	Year round (nocturnal)	None. No CNDDDB records of this species have been documented in the area of analysis. Suitable habitat is present in the area of analysis, but the species is not likely to occur in rice fields. No potential impact to suitable habitat are expected.
Riparian brush rabbit <i>Sylvilagus bachmani riparius</i>	E	E	Isolated populations on Caswell Memorial State Park on the Stanislaus River and along an overflow channel of the San Joaquin River.	Riparian thickets	Year round	None. No CNDDDB records of this species have been documented in the area of analysis. Suitable habitat is present in the area of analysis, however, no potential impacts are expected to suitable habitat (i.e. riparian thickets).
Riparian (San Joaquin Valley) woodrat <i>Neotoma fuscipes riparia</i>	E	SSC	Found along the lower portions of the San Joaquin and Stanislaus rivers in the northern San Joaquin Valley. Historical records for the riparian woodrat are distributed along the San Joaquin, Stanislaus, and Tuolumne rivers, and Corral Hollow, in San Joaquin, Stanislaus, and Merced Counties.	Most numerous where shrub cover is dense and least abundant in open areas. Dens are usually built in willow thickets with oak over story.	Year round (nocturnal activity)	None. Suitable habitat present (i.e. dense shrubs) in both the Buyer and Seller Service Areas, however no CNDDDB occurrences have been documented. No potential impacts are expected.

Appendix I
Special-Status Animals and Plants with Potential to Occur in the Area of Analysis

Common Name <i>Scientific Name</i>	Federal Special Status*	State Special Status*	Distribution	Habitat Association	Seasonal Occurrence	Potential Impact
salt-marsh harvest mouse <i>Reithrodontomys raviventris</i>	E	E	Found in San Francisco Bay and its tributaries.	Found in saline emergent wetlands. Pickle weed is the primary habitat for the species. Requires higher grassland areas for flood escape.	Year round.	None. CNDDDB occurrences have been documented in the Buyer Service Area and suitable habitat may be present in the area of analysis. Transfers would not impact saline wetlands and salt marshes.
salt-marsh wandering shrew <i>Sorex vagrans halicoetes</i>	--	SSC	Southern arm of the San Francisco Bay in San Mateo, Santa Clara, Alameda and Contra Costa counties (Bolster 1998).	Found in the salt marshes. Inhabits medium high marsh where abundant driftwood is scattered among salicornia.	Year round. Breeds February - June	None. CNDDDB occurrences have been documented in the Buyer Service Area and suitable habitat may be present in the area of analysis. Transfers would not impact salt marshes.
San Francisco dusky-footed woodrat <i>Neotoma fuscipes annectens</i>	--	SSC	Oregon, California and northwestern Baja California. Within California it is known from Alameda, Contra Costa, San Mateo, and Santa Clara, and Santa Cruz Counties.	Found in forest habitats of moderate canopy and moderate to dense understory. The species may prefer chaparral and redwood habitats. Nest sites include tree cavities, logs, and talus slopes (Carraway and Verts 1991; NatureServe 2011).	December - September	None. Occurrences have been documented within the Buyer Service area and suitable habitat may be present in the area of analysis. Transfers would not impact forest, chaparral and redwood habitat.

Long-Term Water Transfers
Final EIS/EIR

Common Name <i>Scientific Name</i>	Federal Special Status*	State Special Status*	Distribution	Habitat Association	Seasonal Occurrence	Potential Impact
San Joaquin kit fox <i>Vulpes macrotis mutica</i>	E	T	Found only in the Central Valley area of California. Kit foxes currently inhabit suitable habitat in the San Joaquin valley and in surrounding foothills of the Coast Ranges, Sierra Nevada, and Tehachapi Mountains; from southern Kern County north to Contra Costa, Alameda, and San Joaquin counties on the west; and near La Grange, Stanislaus County on the east.	Found in annual grasslands or grassy open stages of vegetation dominated by scattered brush, shrubs, and scrub. Build dens for cover. Some agricultural areas may support these foxes.	Year round (mostly nocturnal, but often active during daytime in cool weather)	None. Occurrences have been documented within both the Buyer and Seller Service Area. Suitable habitat is present within the area of analysis. San Joaquin kit fox have the potential to occur in inland and southern portions of the area of analysis. Changes in crop type could alter foraging habitat conditions in the Buyer Service Area, however buyers would not be allowed to buy more water than they were entitled to under their CVP contract. Transfer water would not be used to plant permanent crops, so cropping patterns would be within normal range considered under the CVP contracts and would be covered by the pertinent B.O. Conservation strategies are in place for this species.
San Pablo vole <i>Microtus californicus sanpabloensis</i>	--	SSC	Found in salt marshes of San Pablo creek on the south shore of San Pablo Bay.	Annual grassland, saline emergent wetlands, salt marsh.	Year round.	None. CNDDDB occurrences have been documented in the Buyer Service Area and suitable habitat may be present in the area of analysis. Transfers would not impact the wetlands and salt marshes of San Pablo Bay.

Special-Status Animals and Plants with Potential to Occur in the Area of Analysis

Common Name <i>Scientific Name</i>	Federal Special Status*	State Special Status*	Distribution	Habitat Association	Seasonal Occurrence	Potential Impact
short-nosed kangaroo rat <i>Dipodomys nitratoides brevinasus</i>	--	WL	Found in the western side of San Joaquin valley, near the mouth of Panoche Creek in western Fresno County, south to near the mouth of San Emigdio Creek, in southwestern Kern County, and to northeast of Bakersfield. Also occurs in eastern San Benito Valley and Cuyama Valley, and Santa Barbara County (Bolster 1998).	Found in grassland and desert shrub, especially a triplex. Inhabits highly alkaline soils around soda lake and prefers flat to gently sloping terrain.	Year round	None. CNDDDB occurrences have been documented in the Buyer Service Area and suitable habitat may be present in the area of analysis. Transfers would not impact suitable habitat for this species.
Tipton kangaroo rat <i>Dipodomys nitratoides nitratoides</i>	E	E	Found in the Tulare Lake basin of southern San Joaquin Valley, from approximately Lemoore and Hanford in Kings County to Visalia, Tipton, Delano and Bakersfield on the east.	The species is found in saltbush scrub and sink scrub communities. Requires soft friable soils. Currently limited to uncultivated ground with alkaline soils.	Year round	None. CNDDDB occurrences have been documented in the Buyer Service Area and suitable habitat may be present in the area of analysis. Transfers would not impact suitable habitat for this species.
Tulare grasshopper mouse <i>Onychomys torridus tularensis</i>	--	SSC	Foothill and floor of the southern San Joaquin Valley from western Merced and eastern San Benito counties, east to Madera County, and south to foothills of Tehachapi and San Emigdio Mts. Also found on Carrizo Plains, eastern San Luis Obispo County, Cuyama Valley, parts of Kern County, Tulare Basin and Panoche Valley (Bolster 1998).	Found in hot, arid valleys and scrub deserts. Favors compact soils with sparse growth of perennial grasses.	Year round.	None. CNDDDB occurrences have been documented in the Buyer Service Area. Suitable habitat is present within the area of analysis. Transfers would not impact suitable habitat for this species.

Long-Term Water Transfers
Final EIS/EIR

Common Name <i>Scientific Name</i>	Federal Special Status*	State Special Status*	Distribution	Habitat Association	Seasonal Occurrence	Potential Impact
western mastiff bat <i>Eumops perotis californicus</i>	--	SSC	Found in southeastern San Joaquin Valley and Coastal ranges from Monterey County southward through southern California and from the coast eastward to Colorado Desert.	Found in open, semi-arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, and chaparral. Roost in crevices in cliff faces, high buildings, trees and tunnels.	Year round	None. CNDDB occurrences have been documented in the Buyer Service Area and suitable habitat is present within the area of analysis. No impacts are anticipated to feeding or roosting habitat.
western red bat <i>Lasiurus blossevillii</i>	--	SSC	Occurs from Shasta County to Mexican border, west of Sierra Nevada/Cascade crest and deserts. Winters in western lowlands and coastal regions south of SF bay. Not found in desert areas.	Found in trees 2-40ft above ground, from sea level up through mixed conifer forests. Prefers habitat edges and mosaics with trees. Feeds over a wide variety of habitats including grasslands, scrublands and croplands.	Year round. Migrates in spring (March-May) and autumn (Sept.-Oct). Migrates between summer and winter range.	None. Occurrences have been documented in the Buyer and Seller Service Area and suitable habitat is present within the area of analysis. No impacts to roosting habitat are anticipated. Transfers could alter the configuration of foraging habitat, but would not reduce suitability.

Appendix I
Special-Status Animals and Plants with Potential to Occur in the Area of Analysis

Common Name <i>Scientific Name</i>	Federal Special Status*	State Special Status*	Distribution	Habitat Association	Seasonal Occurrence	Potential Impact
Fish						
Sacramento River Winter-run Chinook Salmon <i>Oncorhynchus tshawytscha</i>	E	E	Occurs on the mainstem Sacramento River from Keswick Dam, Shasta County (RM 302) to Chipps Island (RM 0) at the westward margin of the Sacramento-San Joaquin Delta; and in the Bay-Delta system. The area downstream of Red Bluff Diversion Dam is principally a migration corridor, although some rearing may occur during emigration.	Migrate to upstream freshwater habitat to mature and spawn. Once juveniles emerge from the gravel they seek low velocity, shallow-water areas to finish absorbing their yolk sac. Some disperse downstream when high-flow events correspond with emergence. In general, there is a shift in microhabitat use by juvenile Chinook to deeper, faster water as they grow larger. For juveniles, positive growth occurs at temperatures between 5-19 C. Temperatures greater than 24 C, even for short periods, is lethal. Salmon fry tend to move downstream, and smolts emigrate to the ocean, under conditions of increased flow, increased turbidity, and decreased temperatures.	Upstream Migration: Dec-Jul. Spawning: late Apr to early Aug Fry remain in river for five to ten months, prior to emigration. Emigration Sep.-Jan.	None. Species not present in the area of Analysis during period when transfers would occur. Potential impacts would not occur on the mainstem Sacramento River where flows are regulated by the Biological Opinions.

Long-Term Water Transfers
Final EIS/EIR

Common Name <i>Scientific Name</i>	Federal Special Status*	State Special Status*	Distribution	Habitat Association	Seasonal Occurrence	Potential Impact
<p>Central Valley Spring-run Chinook Salmon <i>Oncorhynchus tshawytscha</i></p>	T	T	<p>Designated critical habitat for spring-run Chinook salmon includes San Francisco, San Pablo, and Suisun Bays, the Sacramento-San Joaquin Delta, and the Sacramento River from the Delta to Keswick Dam and the Feather River upstream to Thermalito Afterbay Dam. Spawning occurs above the valley floor in streams that have deep, cold pools where adult fish can hold over the summer before they spawn. Tributaries to the Sacramento River with independent spawning populations are Butte, Deer and Mill Creeks. Spawning may also occur on several other streams in the Area of Analysis including Thomes, Big Chico, and Antelope creeks, and the Yuba and Bear rivers.</p> <p>Rearing occurs in these streams and other the downstream portions of other streams tributary to the Sacramento, as well as in the Sutter and Yolo Bypasses, and in the Delta during outmigration of the young fish.</p>	See Sacramento River winter-run Chinook salmon.	Upstream Migration and holding: Mar-Sep. Spawning: late Aug to Oct. Fry remain in river for three to 15 months, prior to emigration. Emigration Jan-Apr.	<p>Low. Suitable habitat for over summer holding and spawning in the species primary spawning and rearing habitat is located upstream of the areas that would be affected by water transfers. Rearing habitat could potentially be affected by groundwater withdrawals in the lower sections of some streams. The sections of these waterways on the valley floor, where water transfers would occur, are typically too warm to support this species during the summer months.</p> <p>Potential impacts would not occur on the mainstem Sacramento River or the Feather River where the operating requirements specified in the Biological Opinions and D1641 would be met.</p>

Appendix I
Special-Status Animals and Plants with Potential to Occur in the Area of Analysis

Common Name <i>Scientific Name</i>	Federal Special Status*	State Special Status*	Distribution	Habitat Association	Seasonal Occurrence	Potential Impact
Fall/Late-fall Chinook Salmon <i>Oncorhynchus tshawytscha</i>	SC	SSC	Occur in the ocean from Alaska to California. Freshwater habitat use in the Central Valley occurs in the Sacramento River and all major tributaries and many minor ones, as well as in tributaries to the major tributaries to San Joaquin River, including the Merced River. In the Sacramento River, most spawning occurs between the Red Bluff Diversion Dam and Keswick Dam, although some fish spawn downstream of Red Bluff Diversion Dam. Small numbers also spawn in Battle Creek, Cottonwood Creek, Clear Creek, Mill Creek, as well as the Yuba and Bear rivers.	See Sacramento River winter-run Chinook salmon.	Fall Run: Upstream Migration: Jun-Dec. Spawning: late Sep to Dec. Fry remain in river one to seven months Emigration Dec-Mar. Late fall run: Upstream Migration: Oct-Apr. Spawning: Jan-Apr Fry remain in river seven to 13 months Emigration Dec-Mar.	Low. Operating requirements for all of the mainstem rivers would meet existing flow and temperature requirements as specified by the NMFS and USFWS BOs for the Long-term Operations of the State and Federal Water Projects and State Water Board Decision 1641. Water transfers from sellers upstream of the Delta may still result in some flow changes that would overlap spatially and temporally with the distribution of fall-run Chinook salmon emigrants, but flows would continue to meet regulatory requirements protective of this species. Transfers would not overlap the Chinook upstream migration, spawning or incubation periods.

Long-Term Water Transfers
Final EIS/EIR

Common Name <i>Scientific Name</i>	Federal Special Status*	State Special Status*	Distribution	Habitat Association	Seasonal Occurrence	Potential Impact
<p>California Central Valley DPS Steelhead <i>Oncorhynchus mykiss</i></p>	T	SSC	<p>Designated critical habitat includes all waters tributary to the San Francisco Bay from confluence of the Sacramento and San Joaquin River to the lowest impassible barrier. Within these reaches it includes all areas within the ordinary high water mark of the water body. Found in all major rivers and tributaries and may use smaller tributaries, and ephemeral tributaries when available.</p>	<p>Immigration from the ocean into the Delta, the Sacramento and San Joaquin River watersheds occurs when large amounts of cold water is available from winter rains. Spawning occurs in mainstem rivers and their tributaries to. The first year or two of life is spent in cool, clear, fast-flowing permanent streams and rivers where riffles predominate over pools, where there is ample cover in the form of riparian vegetation of undercut banks, and where invertebrate prey is diverse and abundant. Habitat preferences depend on fish size/age, with fry concentrating in shallow water along stream edges with low water velocities, juveniles occurring in deeper, faster water among rocks or other cover, and larger fish seeking out a wide variety of deeper habitats close to fast water. Optimal temperatures for growth are approximately 15-18 C.</p>	<p>Central Valley steelhead are mainly winter-run steelhead, which mature in the ocean and arrive in freshwater nearly ready to spawn. Upstream Migration: Aug-Apr. Spawning: Dec to Apr. Fry generally remain in river for one to three years. Emigration Oct-Jul.</p>	<p>Moderate. Uses the upper Sacramento River above Red Bluff Diversion Dam and the portions of all accessible tributaries to the Sacramento and San Joaquin Rivers with suitable temperatures for spawning and rearing. The Sacramento River below RBDD is used primarily as a migratory corridor. Water transfers from July through September, from sellers upstream of the Delta could overlap spatially and temporally with California Central Valley steelhead rearing in this region where water temperatures are suitable. Stream sections on the valley floor, where transfers could affect stream flow, are generally too warm to support rearing during the summer months, but rearing may occur above the valley floor where suitable temperatures occur. Potential impacts would not occur on the mainstem Sacramento River or the Feather River where the operating requirements specified in the Biological Opinions and D1641 would be met.</p>

Appendix I
Special-Status Animals and Plants with Potential to Occur in the Area of Analysis

Common Name <i>Scientific Name</i>	Federal Special Status*	State Special Status*	Distribution	Habitat Association	Seasonal Occurrence	Potential Impact
North American Green sturgeon <i>Acipenser medirostris</i>	T	SSC	Ranges from Mexico to Alaska. The southern DPS includes spawning population in the Sacramento River, fish living in the Sacramento River, the Sacramento-San Joaquin Delta, and the San Francisco estuary. Not known to occur in the San Joaquin River. Critical habitat include: coastal marine waters from Monterey Bay to the Washington/Canada boarder; coastal bays and estuaries in California, Oregon, and Washington; fresh water rivers in the Central Valley. Proposed inland critical habitat includes Sacramento River downstream of Keswick Dam, Feather River downstream of Thermalito Dam, Yuba River downstream of Daguerre Dam, portions of Sutter and Yolo Bypasses, and the legal Delta.	Southern DPS: Adults immigrate into the Delta from the ocean to begin spawning migration into the Sacramento River. Spawning occurs in the Sacramento River (upstream of Hamilton City and downstream of Keswick Dam), both downstream and upstream of RBDD; a small number have been observed spawning in the Feather River during high flow years. Moyle (2002). Preferred spawning habitat contain large cobble in deep and cool pools with turbulent water. Water temp in spawning and egg incubation are critical; temp greater than 19C are lethal. Rear in fresh and estuarine areas for one to four years before dispersing into salt water. Occur in shallow water and move to deeper more saline areas as they mature. Emigration occurs as larvae drift downriver from freshwater spawning/rearing areas of Sacramento River watershed through the Delta to the ocean. Subadults inhabit the Delta and bays during summer months, while adults are associated with seawater and mixing zones of bays and estuaries and found in lower stretches of some rivers. Adult and juvenile green sturgeon are thought to use the same migratory routes as Chinook salmon.	Immigration: late Feb. to Jun. Spawning: March to July. After spawning, adults over-summer in deep pools of the Sacramento River from June to Nov. and emigrate to the ocean in fall and early winter and flows increase and temperatures decrease. Rearing: year-round.	Low. Potential impacts would not occur on the mainstem Sacramento River or the Feather River where the operating requirements specified in the Biological Opinions and D1641 would be met.

Long-Term Water Transfers
 Final EIS/EIR

Common Name <i>Scientific Name</i>	Federal Special Status*	State Special Status*	Distribution	Habitat Association	Seasonal Occurrence	Potential Impact
Delta smelt <i>Hypomesus transpacificus</i>	T	E	Endemic to Bay-Delta estuary. Primarily distributed downstream of Isleton on the Sacramento River, downstream of Mossdale on the San Joaquin River, Suisun Bay and Suisun marsh, freshwater regions of the Delta. Designated critical habitat (59 FR 65256) extends throughout Suisun Bay, the length of Goodyear, Suisun, Cutoff, first Mallard and Montezuma sloughs, and the contiguous waters of the legal Delta.	Primarily inhabit low salinity waters of estuary prior to migrating into freshwater habitats to spawn. Spawning occurs in slough and shallow edge area in the Delta and Sacramento River; spawning can occur in the Sacramento River as far upstream as Sacramento and in the Cache Slough region, the Mokelumne River system, and the San Joaquin River upstream as far as Prisoner's Point. Spawning occurs at water temperatures ranging from approximately 7C to 22C. Rearing juveniles remain in spawning areas, near or just above the X2 region of the Delta. Adult delta smelt abundance in the fall has been in the northwestern Delta in the channel of the Sacramento River. Although delta smelt tolerate a wide range of temperatures (<6C to > 25C), warm water temperatures restrict their distribution more than colder water temperatures.	Delta and Suisun Bay – year round	Low. Potential impacts would not occur in the Delta as the operating requirements specified in the Biological Opinions and D1641 would be met. Minor changes in flow could occur in the Delta as a result of water transfers, but these flows would be small. Principal rearing areas during the summer and fall are in and around Suisun Bay and in the Cache Slough region.

Appendix I
Special-Status Animals and Plants with Potential to Occur in the Area of Analysis

Common Name <i>Scientific Name</i>	Federal Special Status*	State Special Status*	Distribution	Habitat Association	Seasonal Occurrence	Potential Impact
Longfin smelt <i>Spirinchus thaleichthys</i>	C ⁴	T	Occur along the Pacific coast of North America; widespread within the Bay-Delta estuary, in the lower Sacramento River (downstream of Rio Vista), in the San Joaquin River (downstream of Medford Island). Also common in nearshore coastal marine waters.	Spawns at the transition zone between freshwater and slightly brackish water over sandy or gravel substrates at temperatures from 7 C to 14.5 C. Spawning occurs in the Sacramento River mainstem, as far upstream as Rio Vista, the San Joaquin River as far upstream as Medford Island, and in other waterways within the Delta. Hatching coincides with annual peak Delta outflows, which coincide with high turbidity. Larval smelt concentrate in near-surface, fresh and brackish waters. Distribution of larval and juvenile smelt depends on freshwater outflows from the Delta during the late-spring, eventually inhabiting the bays as well as nearshore coastal marine habitats. Longfin smelt do not occupy areas with temperatures greater than 22 C in combination with salinities greater than 26 ppt.	Spawning: November to June. Fry and juveniles have generally left the Delta by May or June.	None. Potential impacts would not occur in the Delta as the operating requirements specified in the Biological Opinions and D1641 would be met. Minor changes in flow could occur in the Delta as a result of water transfers, but these flows would be small. Longfin smelt do not occur in the Delta during the transfer period.
Hardhead	--	SSC	Hardhead are widely distributed in low to mid elevation streams in the Main Sacramento-San Joaquin river drainage as well as the Russian River drainage. Their range extends from the Ken River, in Kern County to the Pit River south of the Goose Lake drainage but are absent in the valley reaches.	Hardhead are typically found in undisturbed areas of the larger middle- and low elevation streams. Elevational range of hardhead is 10-1,450 m. Most streams in which they occur have summer temperatures in excess of 20°C.	Year-round	Low. Hardhead are largely excluded from the valley floor reaches of the streams and rivers within the Area of Analysis due to warm summer temperatures and the abundance of introduced fish.

Long-Term Water Transfers
Final EIS/EIR

Common Name <i>Scientific Name</i>	Federal Special Status*	State Special Status*	Distribution	Habitat Association	Seasonal Occurrence	Potential Impact
Sacramento splittail	--	SSC	Endemic to the lakes and rivers of the Central Valley. Current distribution generally restricted to the Delta, Suisun Bay, Suisun Marsh, the lower portions of the Napa and Petaluma rivers, and other parts of the San Francisco estuary. They may occur in the Sacramento River upstream as far as Red Bluff Diversion Dam and on the San Joaquin as far upstream as Salt Slough in wet years. They may also occur in the lower Feather and American rivers during these wetter periods. The Sutter and Yolo bypasses are important spawning areas today.	Inhabit estuarine to fresh waters. Spawning occurs primarily on inundated floodplains. Tend to be found in slow-moving sections of rivers and sloughs, and in the Delta and Suisun Marsh. YOY splittail are commonly found between Rio Vista and Chipps island indicating that juveniles prefer more riverine habitat.	Year round in the Delta, Sacramento and San Joaquin Rivers.	Low. Operating requirements for all of the mainstem rivers would meet existing flow and temperature requirements as specified by the NMFS and USFWS BOs for the Long-term Operations of the State and Federal Water Projects and State Water Board Decision 1641.

¹ Central CA DPS

² Santa Barbara and Sonoma Counties

³ All bird species listed below and many other birds are protected during the nesting season under the federal Migratory Bird Treaty Act.

⁴ USFWS has found that the San Francisco Bay-Delta Distinct Population Segment (DPS) of longfin smelt warrants protection under the federal Endangered Species Act, but higher priority listing actions currently preclude their listing.

*Status explanations:

F=Federal

E= listed as endangered under the federal Endangered Species Act

T= listed as threatened under the federal Endangered Species Act

PT= proposed for listing as threatened under the federal Endangered Species Act.

C = Candidate for listing under the federal Endangered Species Act

D= delisted.

S=State

E= listed as endangered under the California Endangered Species Act.

T= listed as threatened under the California Endangered Species Act.

SSC=Species of Special Concern

Table I-2. Special-Status Plants with Potential to Occur in the Area of Analysis

Common Name <i>Scientific name</i>	Special Status* (F/S/RPR)	Distribution	Habitat Association	Blooming Period	Potential Impact
adobe sanicle <i>Sanicula maritima</i>	-/R/ 1B.1	Alameda, Monterey, San Francisco, and San Luis Obispo Counties.	Meadows and seeps, valley and foothill grassland, chaparral, coastal prairie. Moist clay or ultramafic soils from 30-240m asl.	February - May	None. Adobe sanicle has been previously documented in the Buyer Service Area. Water transfer may increase the area of marginal habitat for this species in the Buyer Service Area. No negative impacts are expected.
Ahart's dwarf rush <i>Juncus leiospermus</i> <i>var. ahartii</i>	-/-/ 1B	Butte, Calaveras, Placer, Sacramento, Tehama, and Yuba Counties.	Valley and foothill grassland (mesic). May occur in disturbed areas including agricultural fields and locations with gopher digging activity (CNDDDB 2012).	March-May	Low. Suitable grassland habitat occurs within the area of analysis and this species has been previously documented within the Seller Service Area. There is a low potential that this species would occur in managed rice fields.
Alkali milk-vetch <i>Astragalus tener</i> <i>var. tener</i>	-/-/ 1B.2	Central western California including Yolo County.	Subalkaline flats and areas around vernal pools.	March-June	None. Not likely to occur in rice fields, no suitable habitat (i.e. subalkali flats) would be affected by Transfers.
Anderson's manzanita <i>Arctostaphylos</i> <i>andersonii</i>	-/-/ 1B.2	Santa Clara, Santa Cruz, and San Mateo Counties.	Broadleaved upland forest, chaparral, North coast coniferous forest. Open sites in redwood forest from 180 - 800m asl.	November - May	None. Previously documented within the Buyer Service Area. No suitable habitat would be affected by the proposed Transfers.
Antioch Dunes evening-primrose <i>Oenothera deltoides</i> <i>ssp. howellii</i>	E/E/ 1B.1	Found only in Contra Costa and Sacramento Counties.	Occurs in inland dunes.	March-September	None. CNDDDB records for this species have been documented within the Buyer Service Area. Not likely to occur in rice fields, and no inland dune habitat should be affected by Transfers.

Long-Term Water Transfers
Final EIS/EIR

Common Name <i>Scientific name</i>	Special Status* (F/S/RPR)	Distribution	Habitat Association	Blooming Period	Potential Impact
arcuate bush-mallow <i>Malacothamnus arcuatus</i>	-/-/ 1B.2	Santa Clara, Santa Cruz, and San Mateo Counties.	Chaparral within gravelly alluvium from 80 - 335m asl.	April - September	None. Previously observed within the Buyer Service Area. No impacts to suitable habitat are anticipated in association with the proposed Transfers.
Baker's navarretia <i>Navarretia leucocephala</i> ssp. <i>bakeri</i>	-/-/ 1B.1	Colusa, Glenn, Lake, Lassen, Mendocino, Marin, Napa, Solano, Sonoma, Sutter, Tehama, and Yolo Counties.	Cismontane woodland, meadows and seeps, vernal pools, valley and foothill grassland, lower montane coniferous forest. Vernal pools and swales, adobe or alkaline soils from 5 - 950m.	April - July	None. The CNDDDB contains records of this species within the Seller Service Area. It is very unlikely that Baker's navarretia would establish in rice fields, given the lack of adobe or alkaline soils.
bearded popcorn-flower <i>Plagiobothrys hystriculus</i>	-/-/ 1B.1	Napa, Solano, and Yolo Counties.	Vernal pools, valley and foothill grassland in wet sites from 10-50m. This species is only known from a few very limited occurrences at the edges of vernal pools, such as at Jepson Prairie and in the Montezuma Hills.	April - May	None. Previous records of bearded popcorn-flower exist within the Seller Service Area. This species is not expected to occur in rice fields. No vernal pools or grassland habitats would be affected by the proposed Transfers.
Ben Lomond buckwheat <i>Eriogonum nudum</i> var. <i>decurrens</i>	-/-/ 1B.1	Alameda, Santa Clara, and Santa Cruz Counties.	Chaparral, cismontane woodland, lower montane coniferous forest. Ponderosa pine sandhills in Santa Cruz County from 50 - 800m asl.	June - October	None. The CNDDDB contains occurrences of this species in the Buyer Service Area. No chaparral or woodland habitats would be affected by the proposed Transfers.

Appendix I
Special-Status Animals and Plants with Potential to Occur in the Area of Analysis

Common Name <i>Scientific name</i>	Special Status* (F/S/RPR)	Distribution	Habitat Association	Blooming Period	Potential Impact
bent-flowered fiddleneck <i>Amsinckia lunaris</i>	-/-/ 1B.2	Alameda, Contra Costa, Colusa, Lake, Marin, Napa, San Benito, Santa Clara, Santa Cruz, San Mateo, Sonoma, and Yolo Counties.	Cismontane woodland, valley and foothill grassland from 50 - 500m.	March - June	None. Bent-flowered fiddleneck has been previously documented within the Buyer Service Area. Although suitable habitat occurs within the area of analysis, none would be affected by the proposed actions.
big-scale balsamroot <i>Balsamorhiza macrolepis</i> var. <i>macrolepis</i>	-/-/ 1B.2	Alameda, Butte, Colusa, El Dorado, Lake, Mariposa, Napa, Placer, Santa Clara, Solano, Sonoma, Tehama, and Tuolumne Counties.	Valley and foothill grassland, cismontane woodland. Sometimes on serpentine. 35 - 1000m	March - June	None. This species has been previously documented within both the Buyer and Seller Service Areas. However it is not expected to occur in rice fields due to lack of suitable habitat.
big tarplant <i>Blepharizonia plumosa</i>	-/-/ 1B.1	Alameda, Contra Costa, San Joaquin, Solano, and Stanislaus Counties.	Valley and foothill grassland. Dry hills and plains in annual grassland. Clay to clay-loam soils, usually on slopes and often in burned areas 15 - 455m asl.	July - October	None. Big tarplant has been observed within the Buyer Service Area. Transfers would not affect suitable habitat for this species.

Long-Term Water Transfers
Final EIS/EIR

Common Name <i>Scientific name</i>	Special Status* (F/S/RPR)	Distribution	Habitat Association	Blooming Period	Potential Impact
Boggs Lake hedge-hyssop <i>Gratiola heterosepela</i>	-/E/1B	Dispersed throughout the Sacramento and Central Valley. Also in Oregon.	Marshes, swamps, and vernal pools (clay).	April - August	None. A CNDDB occurrence has been documented within the Seller Service Area. This species may withstand some disturbances, such as cattle. However, modifications of natural hydrology by agriculture or other activities are considered a threat to the species, and Boggs Lake hedge-hyssop is not expected to occur within planted rice fields. No marsh or vernal pool habitat would be affected by the proposed Transfers.
Bolander's water-hemlock <i>Cicuta maculata</i> <i>var. bolanderi</i>	-/-/ 2.1	Occurs within California, Arizona, New Mexico, and Washington. In California it is found in Contra Costa, Los Angeles, Marin, Sacramento, Santa Barbara, San Luis Obispo, and Solano Counties.	Marshes, fresh or brackish water 0 - 200m asl.	July - September	None. Bolander's water hemlock has been previously documented within the Buyer Service Area. No marsh, fresh or brackish water habitat would be affected by the proposed Transfers.
Brandegees clarkia <i>Clarkia biloba</i> ssp. <i>brandegeeeae</i>	-/-/ 1B.2	Butte, El Dorado, Nevada, Placer, Sacramento, Sierra, and Yuba Counties.	Chaparral, cismontane woodland, often in roadcuts 295 - 885m asl.	May - July	None. This species has been previously recorded within the Seller Service Area. No impacts to suitable habitat are expected.
Brandegees eriastrum <i>Eriastrum</i> <i>brandegeeeae</i>	-/-/ 1B.2	Contra Costa, Colusa, Glenn, Lake, Santa Clara, Shasta, San Mateo, Tehama, and Trinity Counties.	Chaparral, cismontane woodland. On barren volcanic soils, often in open areas from 345 - 1000m asl.	April - August	None. Records of Brandegees eriastrum exist for the Buyer Service Area. Suitable habitat would not be affected by Transfers.

Appendix I
Special-Status Animals and Plants with Potential to Occur in the Area of Analysis

Common Name <i>Scientific name</i>	Special Status* (F/S/RPR)	Distribution	Habitat Association	Blooming Period	Potential Impact
Brewer's western flax <i>Hesperolinon breweri</i>	-/-/ 1B.2	Contra Costa, Napa and Solano Counties.	Chaparral, cismontane woodland, valley and foothill grassland. Often in rocky serpentine soils in serpentine chaparral and serpentine grassland from 30 - 885m asl.	May - July	None. Brewer's western flax has been previously observed within the Buyer Service Area. Suitable habitat would not be affected by Transfers.
Brittlescale <i>Atriplex depressa</i>	-/-/1B.2	Western Central Valley and valleys of adjacent foothills.	Alkali grassland, alkali meadow, alkali scrub, and vernal pools. Usually in alkali scalds or alkaline clay in meadows or annual grassland. Rarely associated with riparian areas, marshes, or vernal pools 1 - 320m asl.	April-October	None. Occurrences of this species have been documented in both the Buyer and Seller Service Areas in the CNDDDB. This species is not likely to occur in rice fields due to lack of suitable habitat (i.e. alkali and vernal pools).
Butte County fritillary <i>Fritillaria eastwoodiae</i>	-/-/3.2	Butte, El Dorado, Nevada, Placer, Placer, Shasta, Tehama and Yuba Counties.	Chaparral, cismontane woodland, lower montane coniferous forest. Usually on dry slopes but also found in wet places. Soils can be serpentine, red clay, or sandy loam 40 - 1500m asl.	March - June	None. Butte County fritillary has been previously observed within the Seller Service Area. Rice fields do not provide suitable habitat for this species, and it is therefore not expected to be impacted by Transfers.
California jewel-flower <i>Caulanthus californicus</i>	E/E/ 1B.1	Fresno, Kings, Kern, Santa Barbara, San Luis Obispo, and Tulare Counties.	Chenopod scrub, valley and foothill grassland, pinyon-juniper woodland. From various valley habitats in both the Central Valley and Carrizo Plain 65 - 900m asl.	February - May	None. CNDDDB records of this species exist for the Buyer Service Area. Suitable habitat would not be affected by Transfers.
California seablite <i>Suaeda californica</i>	E/-/ 1B.1	Alameda, Contra Costa, Santa Clara, San Francisco, and San Luis Obispo Counties.	Marshes and swamps. Margins of coastal salt marshes 0 - 5m asl.	July - October	None. California seablite has been previously observed within the Buyer Service Area. No impacts to suitable habitat within the Buyer Service Area are expected to occur.

Long-Term Water Transfers
Final EIS/EIR

Common Name <i>Scientific name</i>	Special Status* (F/S/RPR)	Distribution	Habitat Association	Blooming Period	Potential Impact
caper-fruited tropidocarpum <i>Tropidocarpum capparideum</i>	-/- 1B.1	Alameda, Contra Costa, Fresno, Glenn, Monterey, Santa Clara, San Joaquin, and San Luis Obispo Counties.	Valley and foothill grassland in alkaline clay 0 - 455m asl.	March - April	None. CNDDDB records exist for the Buyer Service Area. Transfers are not expected to impact suitable habitat for this species.
Carquinez goldenbush <i>Isocoma arguta</i>	-/- 1B.1	Occurs in Solano County.	Valley and foothill grassland. Alkaline soils, flats, lower hills. On low benches near drainages and on tops and sides of mounds in swale habitat 1 - 20m asl.	August - December	None. Previously documented within the Buyer Service Area. Transfers would not affect water levels in the Seller Service Area and would only increase the levels in the Buyer Service Area.
chaparral harebell <i>Campanula exigua</i>	-/- 1B.2	Alameda, Contra Costa, San Benito, Santa Clara, and Stanislaus Counties.	Chaparral on rocky sites, usually on serpentine soils 300 - 1250m asl.	May - June	None. Chaparral harebell has been observed within the Buyer Service Area. However, Transfers are not expected to affect suitable habitat for this species.
chaparral ragwort <i>Senecio aphanactis</i>	-/- 2.2	California and Baja California. Within California, the species occurs in Alameda, Contra Costa, Fresno, Los Angeles, Merced, Monterey, Orange, Riverside, Santa Barbara, Santa Clara, the Channel Islands, San Diego, San Luis Obispo, Solano and Ventura Counties.	Cismontane woodland, coastal scrub. Drying alkaline flats 20 - 575m asl.	January - April	None. Previous records of this species exist within the Buyer Service Area. Transfers are not expected to affect suitable habitat for chaparral ragwort.

Appendix I
Special-Status Animals and Plants with Potential to Occur in the Area of Analysis

Common Name <i>Scientific name</i>	Special Status* (F/S/RPR)	Distribution	Habitat Association	Blooming Period	Potential Impact
Choris' popcorn-flower <i>Plagiobothrys chorisianus</i> var. <i>chorisianus</i>	-/-/ 1B.2	Alameda, Santa Cruz, San Francisco, and San Mateo Counties.	Chaparral, coastal scrub, coastal prairie (mesic sites) 15 - 100m asl.	March - June	None. Choris' popcorn flower has been documented within the Buyer Service Area. No impacts to suitable habitat are anticipated in association with the proposed Transfers.
Colusa grass <i>Neostapfia colusana</i>	T/E/1B.1	Southern Sacramento Valley, and northern San Joaquin Valley.	Vernal pools.	May-July	None. According to the CNDDDB, this species has been previously documented in the Seller Service Area. However, this species is not likely to occur in rice fields due to lack of suitable habitat (i.e. vernal pools).
Colusa layia <i>Layia septentrionalis</i>	-/-/ 1B.2	Colusa, Glenn, Lake, Mendocino, Napa, Sonoma, Sutter, Tehama, and Yolo Counties.	Chaparral, cismontane woodland, valley and foothill grassland. Scattered colonies in fields and grassy slopes in sandy or serpentine soil 145 - 1095m asl.	April - May	None. CNDDDB records exist for the Seller Service Area. Transfers are not expected to impact suitable habitat for this species given that rice fields do not provide appropriate conditions.
Congdon's tarplant <i>Centromadia parryi</i> ssp. <i>congdonii</i>	-/-/ 1B.2	Alameda, Contra Costa, Monterey, Santa Clara, Santa Cruz, San Luis Obispo, San Mateo, and Solano Counties.	Valley and foothill grassland. Alkaline soils, sometimes described as heavy white clay 1 - 230m asl.	May - November	None. Although this species has been documented within the Buyer Service Area (CNDDDB), no impacts to suitable habitat are expected.
Contra Costa goldfields <i>Lasthenia conjugens</i>	E/-/1B.1	San Francisco Bay Delta Regions, and scattered coastal areas.	Cismontane woodlands, playas, valley and foothill grasslands, and vernal pools. Often occurs in vernal pools, swales, and low depressions in open grassy areas 1 - 445m asl.	March-June	None. According to the CNDDDB, this species has been previously documented within the Buyer Service Area. No impacts to suitable habitat (i.e. vernal pools, playas) are expected.

Long-Term Water Transfers
Final EIS/EIR

Common Name <i>Scientific name</i>	Special Status* (F/S/RPR)	Distribution	Habitat Association	Blooming Period	Potential Impact
Contra Costa manzanita <i>Arctostaphylos manzanita</i> ssp. <i>laevigata</i>	-/1B.2	Contra Costa County.	Chaparral on rocky slopes 500 - 1100m asl.	January - April	None. Contra Costa manzanita has been observed within the Buyer Service Area. No impacts to suitable habitat for this species are expected.
Contra Costa wallflower <i>Erysimum capitatum</i> var. <i>angustatum</i>	E/E/1B.1	Contra Costa County	Inland dunes. Stabilized dunes of sand and clay near Antioch along the San Joaquin River 3 - 20m asl.	March - July	None. Records of this species exist within the Buyer Service Area. Suitable habitat would not be affected by Transfers.
coyote ceanothus <i>Ceanothus ferrisiae</i>	E-/1B.1	Santa Clara County	Chaparral, valley and foothill grassland, coastal scrub. Serpentine sites in the Mt. Hamilton Range 120 - 455m asl.	January - May	None. The CNDDDB contains records of this species within the Buyer Service Area. No suitable habitat for coyote ceanothus is expected to be impacted by the proposed Transfers.
Crampton's tuctoria (Solano grass) <i>Tuctoria mucronata</i>	E/E/1B	Located only in Yolo and Solano Counties.	Valley and foothill grassland (mesic), and vernal pools.	April-August	None. Occurrences have been documented outside of the area of analysis. Not likely to occur in rice fields. Suitable habitat within the Seller Service Area would not be impacted by Transfers.
Delta coyote-thistle(button celery) <i>Eryngium racemosum</i>	-/E/1B	Calaveras, Contra Costa, Merced, San Joaquin, and Stanislaus Counties.	Riparian scrub and vernal mesic clay depressions.	June-October	None. No occurrences have been documented within the area of analysis, but the species is known from Contra Costa, Merced, San Joaquin and Stanislaus Counties. No suitable habitat would be impacted by the proposed Transfers.

Appendix I
Special-Status Animals and Plants with Potential to Occur in the Area of Analysis

Common Name <i>Scientific name</i>	Special Status* (F/S/RPR)	Distribution	Habitat Association	Blooming Period	Potential Impact
Delta mudwort <i>Limosella subulata</i>	-/- 2.1	Contra Costa, Marin, Sacramento, San Joaquin, Solano Counties.	Riparian scrub, freshwater marsh, brackish marsh. Usually on intertidal flats and muddy banks of the Delta in marshy or scrubby riparian associations, often with <i>Lilaeopsis masonii</i> 0 - 3m asl. Typically occurs with other rare plant species.	May - August	None. Previous CNDDDB records exist within the Buyer Service Area, and suitable habitat is also present within the Seller Service Area. This species is not expected to occur within rice fields given that it is sensitive to alteration of natural hydrology and other disturbances (SCWA 2007).
Delta tule pea <i>Lathyrus jepsonii</i> <i>var. jepsonii</i>	-/- 1B.2	Contra Costa, Napa, Sacramento, San Joaquin, Solano, Sonoma, Yolo Counties.	Coastal salt marsh. In coastal salt marsh with <i>Distichlis</i> , <i>Salicornia</i> , <i>Frankenia</i> , etc. from 0-3m asl.	May - September	None. Suitable habitat is present within the area of analysis, and CNDDDB records exist for the Buyers Service Area. Transfers are not expected to impact suitable habitat for this species (i.e. coastal salt marshes).
Diablo helianthella <i>Helianthella castanea</i>	-/- 1B.2	Alameda, Contra Costa, Marin, San Francisco, San Mateo.	Broadleaved upland forest, chaparral, cismontane woodland, coastal scrub, riparian woodland, valley and foothill grassland. Usually in chaparral/oak woodland interface in rocky, azonal soils. Often in partial shade 25-1150m asl.	March - June	None. Diablo helianthella has been previously documented within the Buyer Service Area. No impacts to suitable habitat for this species are anticipated.
diamond-petaled California poppy <i>Eschscholzia rhombipetala</i>	-/- 1B.1	Alameda, Contra Costa, Colusa, San Joaquin, San Luis Obispo, Stanislaus Counties.	Valley and foothill grassland. Alkaline clay slopes and flats. 0 - 975m asl.	March - April	None. This species has been previously documented within the Buyer Service Area. No impacts to suitable habitat are anticipated.

Long-Term Water Transfers
Final EIS/EIR

Common Name <i>Scientific name</i>	Special Status* (F/S/RPR)	Distribution	Habitat Association	Blooming Period	Potential Impact
dubious pea <i>Lathyrus sulphureus</i> <i>var. argillaceus</i>	-/- 3	Calaveras, El Dorado, Nevada, Placer, Shasta, Tehama Counties.	Cismontane woodland, lower montane coniferous forest, upper montane coniferous forest 150-305m asl.	April - May	None. CNDDDB records of dubious pea exist within the Seller Service Area. Transfers actions would not affect suitable habitat for this species.
dwarf downingia <i>Downingia pusilla</i>	-/- 2.2	Occurs in California and South America. Within California: Amador, Fresno, Merced, Napa, Placer, Sacramento, San Joaquin, Solano, Sonoma, Stanislaus, Tehama, Yuba.	Vernal pools. Many historical occurrences are extirpated. In beds of vernal pools 1 - 880m asl.	March - May	None. Previously observed within the Seller Service Area. Not likely to establish in rice fields, due to lack of suitable habitat (i.e., vernal pools).
elongate copper moss <i>Mielichhoferia elongata</i>	-/- 2.2	Occurs in California, Colorado and Oregon. Within California, occurs in Fresno, Humboldt, Lake, Mariposa, Marin, Nevada, Placer, Plumas, Santa Cruz, Trinity, and Tulare Counties.	Cismontane woodland on very acidic, metamorphic rock or substrate, usually in higher portions in fens.	--	None. CNDDDB records exist for the Seller Service Area. Transfers are not expected to affect suitable habitat for this species.
Ferris' milk-vetch <i>Astragalus tener</i> <i>var. ferrisae</i>	-/-1B.1	Sacramento Valley.	Subalkaline flats and areas around vernal pools.	March-June	None. The species has been previously documented within the Seller Service Area. Not likely to occur in rice fields, due to lack of suitable habitat.
fragrant fritillary <i>Fritillaria liliacea</i>	-/- 1B.2	Alameda, Contra Costa, Monterey, Marin, San Benito, Santa Clara, San Francisco, San Mateo, Solano, Sonoma Counties.	Cismontane woodland, valley and foothill grassland. Grassy areas from 635 - 855m asl.	February - April	None. Previous records exist within the Buyer Service Area. Transfers are not expected to impact suitable habitat for fragrant fritillary.

Special-Status Animals and Plants with Potential to Occur in the Area of Analysis

Common Name <i>Scientific name</i>	Special Status* (F/S/RPR)	Distribution	Habitat Association	Blooming Period	Potential Impact
Franciscan onion <i>Allium peninsulare</i> <i>var. franciscanum</i>	-/- 1B.2	Mendocino, Santa Clara, San Mateo, Sonoma Counties.	Cismontane woodland, valley and foothill grassland. Clay soils, often on serpentine. Dry hillsides from 100 - 300m asl.	May - June	None. Previous records of franciscan onion exist for the Buyer Service Area. The proposed Transfers is not expected to impact suitable habitat for this species.
Franciscan thistle <i>Cirsium andrewsii</i>	-/- 1B.2	Contra Costa, Marin, San Francisco, San Mateo, Sonoma Counties.	Coastal bluff scrub, broadleaved upland forest, coastal scrub. Sometimes serpentine seeps 0 - 135m asl.	March - July	None. Has been observed within the Buyer Service Area. No impacts to suitable habitat for Franciscan thistle are anticipated.
Greene's tuctoria <i>Tuctoria greeni</i>	E/R/1B.1	Butte, Colusa, Fresno, Glenn, Madera, Merced, Modoc, Shasta, San Joaquin, Stanislaus, Tehama, and Tulare Counties.	Vernal pools.	May-July	None. There is a CNDDB occurrence within the Seller Service Area, however this species is not likely to occur in rice fields due to lack of suitable habitat (i.e. vernal pools).
hairless popcorn-flower <i>Plagiobothrys glaber</i>	-/- 1A	Alameda, Marin, San Benito, Santa Clara Counties.	Meadows and seeps, marshes and swamps. Coastal salt marshes and alkaline meadows 5-180m asl.	March - May	None. This species has been documented by CNDDB within the Buyer Service Area. Transfers are not expected to impact suitable habitat for this species within the Buyer Service Area.
hairy Orcutt grass <i>Orcuttia pilosa</i>	E/E/1B.1	Northern Sacramento Valley, Pit River Valley; isolated populations in Lake and Sacramento counties.	Vernal pools.	May - September	None. Hairy Orcutt grass has previously been documented by the CNDDB in the Seller Service Area. However this species is not likely to occur in rice fields due to lack of suitable habitat (i.e. vernal pools).

Long-Term Water Transfers
Final EIS/EIR

Common Name <i>Scientific name</i>	Special Status* (F/S/RPR)	Distribution	Habitat Association	Blooming Period	Potential Impact
Hall's bush-mallow <i>Malacothamnus hallii</i>	-/-/ 1B.2	Contra Costa, Lake, Mendocino, Merced, Santa Clara, San Mateo, Stanislaus Counties.	Chaparral. Some populations on serpentine 10 - 550m asl.	May - October	None. Previous records exist within the Buyer Service Area. Transfers are not expected to impact suitable habitat for Hall's bush-mallow.
Hall's tarplant <i>Deinandra halliana</i>	-/-/ 1B.1	Fresno, Monterey, San Benito, San Luis Obispo Counties.	Cismontane woodland, valley and foothill grassland, vernal pools. In grassland and not necessarily in vernal pools 200 - 1000m asl.	April - May	None. Hall's tarplant has been observed within the Buyer Service Area. Transfers are not expected to impact vernal pools or other suitable habitat for this species within the Buyer Service Area.
Hartweg's golden sunburst <i>Pseudobahia bahiifolia</i>	E/E/1B	Found in El Dorado, Fresno, Madera, Merced, Stanislaus, Tuolumne, and Yuba Counties.	Cismontane woodland, valley and foothill grassland, often acidic.	April - May	None. There are CNDDDB occurrences within Yolo County outside of the area of analysis. This species is not likely to be affected by Transfers given that it is not likely to occur in rice fields.
Heartscale <i>Atriplex cordulata</i>	-/-/1B	Western Central Valley and valleys of adjacent foothills.	Alkali grasslands, alkali meadows, and alkali scrub.	May - October	None. CNDDDB occurrences have been documented within the Seller Service Area (Butte, Colusa, Yolo, and Glenn Counties). However this species is not likely to occur in rice fields due to lack of suitable habitat (i.e. alkali areas).

Special-Status Animals and Plants with Potential to Occur in the Area of Analysis

Common Name <i>Scientific name</i>	Special Status* (F/S/RPR)	Distribution	Habitat Association	Blooming Period	Potential Impact
Heckard's pepper-grass <i>Lepidium latipes</i> <i>var. heckardii</i>	-/-1B	Glenn, Solano, and Yolo Counties.	Valley and foothill grassland alkaline flats.	March-May	None. This species has been previously documented within the Seller Service Area. However it is not likely to occur in rice fields due to lack of suitable habitat (i.e. alkali flats).
Henderson's bent grass <i>Agrostis hendersonii</i>	- /- 3.2	Found in Butte, Calaveras, Merced, Placer, Shasta, and Tehama Counties. Also found in Oregon.	Vernal pools.	March- June	None. CNDDDB records for this species occur within the Seller Service Area. Not likely to occur in rice fields due to lack of suitable habitat (i.e. vernal pools).
Hispid bird's beak <i>Cordylanthus mollis</i> <i>ssp. hispidus</i>	-/-1B.1	Alameda, Kern, Fresno, Merced, Placer, and Solano Counties.	Meadows and seeps, playas, valley and foothill grasslands (alkali).	June-September	None. Previously observed within the Seller Service Area according to CNDDDB records. Not likely to occur in rice fields, no suitable habitat present.
hooked popcorn-flower <i>Plagiobothrys uncinatus</i>	-/- 1B.2	Monterey, San Benito, Santa Clara, San Luis Obispo, and Stanislaus Counties.	Chaparral, cismontane woodland, valley and foothill grassland, coastal bluff scrub. Sandstone outcrops and canyon sides, often in burned or disturbed areas 300 - 820m asl.	April - May	None. Hooked popcorn-flower has been documented within the Buyer Service Area. No impacts to suitable habitat for this species are anticipated.
Hoover's button-celery <i>Eryngium aristulatum</i> <i>var. hooverii</i>	-/- 1B.1	Alameda, San Benito, Santa Clara, San Diego, San Luis Obispo Counties.	Vernal pools. Alkaline depressions, vernal pools, roadside ditches and other wet places near the coast 5 - 45m asl.	July - August	None. This species has been documented within the Buyer Service Area. Suitable habitat for the species is present (e.g. irrigated agriculture and ditches), but no impacts to suitable habitat are expected within the Buyer Service Area.

Long-Term Water Transfers
Final EIS/EIR

Common Name <i>Scientific name</i>	Special Status* (F/S/RPR)	Distribution	Habitat Association	Blooming Period	Potential Impact
Hoover's cryptantha <i>Cryptantha hooveri</i>	-/- 1A	Contra Costa, Kern, Madera, Stanislaus Counties.	Valley and foothill grassland in coarse sand up to 150m asl.	April - May	None. Hoover's cryptantha has been observed within the Buyer Service Area. No impacts to suitable habitat for this species are anticipated.
Hoover's eriastrum <i>Eriastrum hooveri</i>	D/-/ 4.2	Contra Costa, Kern, Madera, Stanislaus Counties.	Chenopod scrub, valley and foothill grassland, pinyon-juniper woodland. On sparsely vegetated alkaline alluvial fans, also in the Temblor Range on sandy soils 50 - 915m asl.	April - May	None. This species has previously been documented within the Buyer Service Area. No suitable habitat for this species would be impacted by the proposed Transfers.
Hoover's spurge <i>Chamaesyce hooveri</i>	T/-/ 1B.2	Scattered in Glenn, Butte, Colusa, Merced, Stanislaus, Tehama, and Tulare Counties.	Vernal pools.	July-September	None. According to the CNDDDB occurrences have been documented in the Seller Service Area. However, this species is not likely to occur in rice fields due to lack of suitable habitat (i.e. vernal pools).
Hospital Canyon larkspur <i>Delphinium californicum</i> ssp. <i>interius</i>	-/- 1B.2	Alameda, Contra Costa, Merced, Monterey, San Benito, Santa Clara, San Joaquin, and Stanislaus Counties.	Cismontane woodland, chaparral. In wet, boggy meadows, openings in chaparral and in canyons 225 - 1060m asl.	April - June	None. Hospital Canyon larkspur has been observed within the Buyer Service Area. There is suitable habitat for this species in the area of analysis, but the proposed actions are not expected to impact these habitat in the Buyer Service Area.
Indian valley brodiaea <i>Brodiaea coronaria</i> ssp. <i>rosea</i>	-/E/1B	Scattered in Glenn, Lake, Colusa, and Tehama Counties.	Closed cone coniferous forest, chaparral, valley and foothill grasslands (serpentinite).	May-June	None. CNDDDB occurrences have been documented outside of the area of analysis. This species is not likely to occur in rice fields due to lack of suitable habitat.

Special-Status Animals and Plants with Potential to Occur in the Area of Analysis

Common Name <i>Scientific name</i>	Special Status* (F/S/RPR)	Distribution	Habitat Association	Blooming Period	Potential Impact
Indian Valley bush-mallow <i>Malacothamnus aboriginum</i>	-/- 1B.2	Alameda, Contra Costa, Merced, Monterey, San Benito, Santa Clara, San Joaquin, and Stanislaus Counties.	Cismontane woodland, chaparral. Granitic outcrops and sandy bare soil, often in disturbed soils 150 - 1700m asl.	April - June	None. Indian Valley bush-mallow has been observed within the Buyers Service Area. The proposed Transfers should not affect suitable habitat for this species.
Jepson's milk-vetch <i>Astragalus rattanii</i> <i>var. jepsonianus</i>	-/-1B.2	Colusa, Glenn, Lake, Napa, Tehama, and Yolo Counties.	Chaparral, cismontane woodland, valley and foothill grassland, often serpentinite.	April-June	None. Although suitable habitat exists, no CNDDB records have been documented within the area of analysis. This species is not likely to be impacted as rice fields do not provide suitable habitat.
Keck's checkerbloom <i>Sidalcea keckii</i>	E/-/1B.1	Colusa, Fresno, Merced, Napa, Solano, Tulare, and Yolo Counties.	Cismontane woodlands, foothill and valley grasslands (serpentinite).	April-May	None. No CNDDB occurrences of this species are known for the area of analysis. Suitable habitat is present, but would not be impacted by the proposed Transfers.
Kellogg's horkelia <i>Horkelia cuneata</i> <i>ssp. sericea</i>	-/- 1B.1	Alameda, Monterey, Marin, Santa Barbara, Santa Cruz, San Francisco, San Luis Obispo, and San Mateo Counties.	Closed-cone coniferous forest, coastal scrub, chaparral. Within old dunes, coastal sandhills, openings from 10 - 200m asl.	April - September	None. Records of Kellogg's horkelia exist in the Buyer Service Area. Transfers are not expected to affect suitable habitat for this species within the area of analysis.
Kings Mountain manzanita <i>Arctostaphylos regismontana</i>	-/- 1B.2	Santa Clara, Santa Cruz, and San Mateo Counties.	Broadleaved upland forest, chaparral, north coast coniferous forest. Granitic or sandstone outcrops 305 - 730m asl.	January - April	None. This species has been previously observed within the Buyer Service Area. Suitable habitat is presented but would not be impacted by the proposed Transfers.

Long-Term Water Transfers
Final EIS/EIR

Common Name <i>Scientific name</i>	Special Status* (F/S/RPR)	Distribution	Habitat Association	Blooming Period	Potential Impact
large-flowered fiddleneck <i>Amsinckia grandiflora</i>	E/E/ 1B.1	Alameda, Contra Costa, and San Joaquin Counties.	Cismontane woodland, valley and foothill grassland. Annual grassland in various soils 275 - 550m asl.	April - May	None. Large-flowered fiddleneck has been recorded by the CNDDDB within the Buyer Service Area. No impacts would occur to suitable habitat.
Layne's ragwort <i>Packera layneae</i>	T-/1B	Butte, El Dorado, Tuolumne, and Yuba Counties.	Chaparral and cismontane woodland, rocky and often serpentinite.	April-August	None. There is a CNDDDB occurrence within Butte County, outside the area of analysis. Although suitable habitat is present within the area of analysis, it is not expected to be impacted by the proposed Transfers.
Legenere <i>Legenere limosa</i>	-/-1B.1	Sacramento Valley and south of the North Coast Ranges.	Vernal pools from 1-880m asl.	April-June	None. Legenere has been documented within both the Buyer and Seller Service Areas. Not likely to occur in rice fields, no suitable habitat present (i.e. vernal pools).
Lesser saltscare <i>Atriplex minuscula</i>	-/-1B	Found in Butte, Fresno, Kern, Madera, Merced, Stanislaus, and Tulare Counties.	Chenopod scrub, playas, valley and foothill grasslands (alkali and sandy).	May-October	None. No CNDDDB records exist for the area of analysis, but it has been documented within some of the counties. Suitable habitat occurs within the Buyer Service Area, but would not be impacted by the proposed Transfers.
Lime Ridge navarretia <i>Navarretia gowenii</i>	-/- 1B.1	Occurs within Contra Costa and Stanislaus Counties in California.	Chaparral on calcium carbonate rich soil with high clay content, 180 - 305m asl.	May - June	None. Previously documented within the Buyer Service Area. No suitable habitat for Lime Ridge navarretia would be affected by the proposed Transfers.

Special-Status Animals and Plants with Potential to Occur in the Area of Analysis

Common Name <i>Scientific name</i>	Special Status* (F/S/RPR)	Distribution	Habitat Association	Blooming Period	Potential Impact
Loma Prieta hoita <i>Hoita strobilina</i>	-/- 1B.1	Alameda, Contra Costa, Santa Clara, Santa Cruz Counties.	Chaparral, cismontane woodland, riparian woodland. Within serpentine at mesic sites.	May - October	None. CNDDDB records of Loma Prieta hoita exist for the Buyer Service Area. No impacts are expected within suitable habitat for this species.
Lone buckwheat <i>Eriogonum apricum</i> var. <i>apricum</i>	E/E/1B	Found in Amador and Sacramento Counties.	Chaparral.	July-October	None. Although it has been documented, no CNDDDB records exist within the area of analysis. This species is not likely to occur in rice fields due to lack of suitable habitat.
Lost Hills crownscale <i>Atriplex coronata</i> var. <i>vallicola</i>	-/- 1B.2	Fresno, Kings, Kern, Merced, and San Luis Obispo Counties.	Chenopod scrub, valley and foothill grassland, vernal pools. In powdery, alkaline soils that are vernal moist with Frankenia, Atriplex spp. And Distichlis. 0 - 605m asl.	April - August	None. This species has been documented within the Buyer Service Area. No impacts to suitable habitat are expected.
lost thistle <i>Cirsium praeteriens</i>	-/- 1A	Little information exists on this plant. San Mateo and Santa Clara Counties. Little information exists on this species. It was collected from the Palo Alto area at the turn of the 20th century. Not observed since 1901.	0 - 100m asl.	June - July	None. CNDDDB records of lost thistle exist for the Buyer Service Area. Very limited information is available. Based on status information it is likely to be extirpated and would therefore be unlikely to occur within an area impacted by transfers.
maple-leaved checkerbloom <i>Sidalcea</i> <i>malachroides</i>	-/- 4.2	Occurs within California and Oregon. In California the species occurs in Del Norte, Humboldt, Mendocino, Monterey, Santa Clara, Santa Cruz, and Sonoma Counties.	Broadleaved upland forest, coastal prairie, coastal scrub, North Coast coniferous forest. Woodlands and clearings near coast, often in disturbed areas 2 - 760m asl.	March - August	None. This species has been previously documented within the Buyer Service Area. No impacts to areas of suitable habitat are anticipated.

Long-Term Water Transfers
Final EIS/EIR

Common Name <i>Scientific name</i>	Special Status* (F/S/RPR)	Distribution	Habitat Association	Blooming Period	Potential Impact
Marsh checkerbloom <i>Sidalcea oregana</i> <i>ssp. hydrophila</i>	-/-1B	Glenn, Lake, Mendocino, and Napa Counties.	Meadows and seeps, and riparian forest.	June-August	None. Suitable habitat present within Glenn County in the area of analysis. This species is not expected to establish in rice fields, and therefore no impacts are anticipated.
Mason's lilaeopsis <i>Lilaeopsis masonii</i>	-/R/ 1B.1	Alameda, Contra Costa, Marin, Napa, Sacramento, San Joaquin, Solano, and Yolo Counties.	Freshwater and brackish marshes, riparian scrub. Tidal zones, in muddy or silty soil formed through river deposition or river bank erosion 0 - 10m asl. Populations may be ephemeral, using freshly deposited or exposed sediments (SCWA 2007).	April - November	None. Previous records of this species exist within the Buyer Service Area. This species is not expected to establish within rice fields.
Merced phacelia <i>Phacelia ciliata</i> var. <i>opaca</i>	-/- 1B.2	Merced County.	Valley and foothill grassland. Adobe or clay soils of valley floors, open hills or alkaline flats 60 - 150m asl.	February - May	None. Merced phacelia has been documented within the Seller Service Area. Transfers are not expected to affect suitable habitat for this species.
Metcalf Canyon jewel-flower <i>Streptanthus</i> <i>albidus</i> ssp. <i>albidus</i>	E/-/ 1B.1	Santa Clara County.	Valley and foothill grassland. Relatively open areas in dry grassy meadows on serpentine soils 45 - 245m asl.	April - July	None. This species was previously observed within the Buyer Service Area according to CNDDDB. No Transfers-related impacts to suitable habitat for Metcalf Canyon jewel-flower are anticipated.

Appendix I
Special-Status Animals and Plants with Potential to Occur in the Area of Analysis

Common Name <i>Scientific name</i>	Special Status* (F/S/RPR)	Distribution	Habitat Association	Blooming Period	Potential Impact
Milo Baker's lupine <i>Lupinus milo-bakeri</i>	-/T/1B	Glenn and Mendocino Counties.	Cismontane woodlands, foothill and valley grasslands.	June-September	None. Although suitable habitat is present within the area of analysis, no CNDDB records have been documented in either the Buyer or Seller Service Areas. This species is not likely to occur in rice fields due to lack of suitable habitat.
most beautiful jewel-flower <i>Streptanthus albidus</i> ssp. <i>peramoenus</i>	-/-/ 1B.2	Alameda, Contra Costa, Monterey, Santa Clara, and San Luis Obispo Counties.	Chaparral, valley and foothill grassland, cismontane woodland, serpentine outcrops, on ridges and slopes 120 - 730m asl.	March - October	None. Most beautiful jewel-flower has been previously observed within the Buyer Service Area. No Transfers-related impacts to suitable habitat for this species are expected.
Mount Day rockcress <i>Boechera rubicundula</i>	-/-/ 1B.1	Santa Clara County.	Rocky slopes in chaparral at 1200m asl.	April - May	None. According to CNDDB, this species was documented within the Buyer Service Area. No suitable habitat for this species would be affected by Transfers.
Mt. Diablo buckwheat <i>Eriogonum truncatum</i>	-/-/ 1B.1	Alameda, Contra Costa, and Solano Counties.	Chaparral, coastal scrub, valley and foothill grassland. Dry, exposed clay or sandy substrates 100 - 600m asl.	April - December	None. This species has been observed within the Buyer Service Area. No suitable habitat would be affected by Transfers.
Mt. Diablo fairy-lantern <i>Calochortus pulchellus</i>	-/-/ 1B.2	Alameda, Contra Costa, and Solano Counties.	Chaparral, cismontane woodland, riparian woodland, valley and foothill grassland on wooded and brushy slopes 200 - 800m asl.	April - June	None. Mt. Diablo fairy-lantern has been documented within the Buyer Service Area. No impacts to suitable habitat for this species are expected.

Long-Term Water Transfers
Final EIS/EIR

Common Name <i>Scientific name</i>	Special Status* (F/S/RPR)	Distribution	Habitat Association	Blooming Period	Potential Impact
Mt. Diablo jewel-flower <i>Streptanthus hispidus</i>	-/- 1B.3	Contra Costa County.	Valley and foothill grassland, chaparral, talus or rocky outcrops 275 - 970m asl.	March - June	None. The Mt. Diablo jewel-flower has been documented in the Buyer Service Area. No impacts to suitable habitat area anticipated.
Mt. Diablo manzanita <i>Arctostaphylos auriculata</i>	-/- 1B.3	Contra Costa County.	Chaparral in canyons and on slopes. On sandstone 120 - 500m asl.	January - March	None. This species was previously observed within the Buyer Service Area according to CNDDDB. No Transfers-related impacts to suitable habitat for Mt. Diablo phacelia are anticipated.
Mt. Diablo phacelia <i>Phacelia phacelioides</i>	-/- 1B.2	Contra Costa, San Benito, Santa Clara, and Stanislaus Counties.	Chaparral, cismontane woodland. Adjacent to trails, on rock outcrops and talus slopes, sometimes on serpentine 500 - 1370m asl.	April - May	None. Mt. Diablo phacelia has been documented within the Buyer Service Area. No impacts to suitable habitat for this species are expected.
Mt. Hamilton coreopsis <i>Leptosyne hamiltonii</i>	-/- 1B.2	Alameda, Santa Clara, and Stanislaus Counties.	Cismontane woodland. On steep shale talus with open southwestern exposure 530 - 1300m asl.	March - May	None. CNDDDB records of Mt. Hamilton coreopsis exist within the Buyer Service Area. Transfers would not affect suitable habitat for this species.
Mt. Hamilton fountain thistle <i>Cirsium fontinale</i> var. <i>campylon</i>	-/- 1B.2	Alameda, Santa Clara, and Stanislaus Counties.	Cismontane woodland, chaparral, valley and foothill grassland. In seasonal and perennial drainages on serpentine soil 95 - 890m asl.	February - October	None. This species has been documented within the Buyers Service Area. No impacts to suitable habitat within the area of analysis are anticipated.
Mt. Hamilton jewel-flower <i>Streptanthus callistus</i>	-/- 1B.3	Santa Clara County.	Chaparral, cismontane woodland. Open talus slopes on shale with grey pine and/or black oak 600 - 790m asl.	April - May	None. Mt. Hamilton jewel-flower has been documented within the Buyers Service Area by CNDDDB. Transfers would not impact suitable habitat for this species.

Special-Status Animals and Plants with Potential to Occur in the Area of Analysis

Common Name <i>Scientific name</i>	Special Status* (F/S/RPR)	Distribution	Habitat Association	Blooming Period	Potential Impact
Mt. Hamilton lomatium <i>Lomatium observatorium</i>	-/- 1B.2	Santa Clara and Stanislaus Counties.	Cismontane woodland. Open to partially shaded openings in Pinus coulteri - Oak woodland. Sedimentary Franciscan rocks and volcanic soils 1219 - 1330m asl.	March - May	None. Mt. Hamilton lomatium has been documented within the Buyers Service Area by CNDDDB. Transfers would not impact suitable habitat for this species.
Munz's tidy-tips <i>Layia munzii</i>	-/- 1B.2	Fresno, Kern, and San Luis Obispo Counties.	Chenopod scrub, valley and foothill grassland. Hillsides in white-grey alkaline clay soils with grasses and chenopod scrub associates 45 - 760m asl.	March - April	None. This species has been observed within the Buyer Service Area. No suitable habitat would be affected by Transfers.
Norris' beard moss <i>Didymodon norrisii</i>	-/- 2.2	Butte, Contra Costa, Colusa, Humboldt, Lake, Los Angeles, Madera, Monterey, Mariposa, Nevada, Plumas, San Benito, Santa Cruz, Shasta, Sierra, Sonoma, Tehama, Tulare, and Tuolumne Counties.	Cismontane woodland, lower montane coniferous forest. Moss from seasonally wet sheet drainages on exposed rock slabs or terraces that completely dry in summer.	--	None. Records of Norris' beard moss exist for the Buyer Service Area. Transfers would not impact suitable habitat for this species.
Northern California black walnut <i>Juglans hindsii</i>	-/-1B	Native stands reported in Napa and Contra Costa Counties.	Riparian woodland.	April-May	None. Previously documented within the Buyer Service Area. Transfers would not impact suitable habitat for this species.
Oregon meconella <i>Meconella oregana</i>	-/- 1B.1	Occurs in California, Oregon and Washington. Within California occurs in Contra Costa and Santa Clara Counties.	Coastal prairie and coastal scrub in open, moist places 250 - 500m asl.	March - April	None. Oregon meconella has been observed within the Buyer Service Area. Transfers would not affect suitable habitat for this species.

Long-Term Water Transfers
Final EIS/EIR

Common Name <i>Scientific name</i>	Special Status* (F/S/RPR)	Distribution	Habitat Association	Blooming Period	Potential Impact
oval-leaved viburnum <i>Viburnum ellipticum</i>	-/-/2.3	Occurs in California, Oregon and Washington. Within California occurs in Contra Costa, El Dorado, Fresno, Glenn, Humboldt, Mendocino, Napa, Placer, Shasta, Sonoma and Tehama Counties.	Chaparral, cismontane woodland, and lower montane coniferous forest 215 - 1400m asl.	May - June	None. This species has been previously documented within the Buyer Service Area. Suitable habitat for oval-leaved viburnum is not expected to be affected by Transfers.
pallid manzanita <i>Arctostaphylos pallida</i>	T/E/1B.1	Alameda and Contra Costa Counties.	Broadleaved upland forest, closed-cone coniferous forest, chaparral, cismontane woodland, coastal scrub. Grows on uplifted marine terraces on siliceous shale or thin chert at 185 - 465m asl. May require fire.	December - March	None. Pallid manzanita has been observed within the Buyer Service Area. No Transfers-related impacts to suitable habitat are anticipated.
Palmate-bracted bird's-beak <i>Cordylanthus palmatus</i>	E/E/1B.1	Found in Glenn and Colusa Counties and within the Central Valley.	Alkali meadow, alkali scrub, valley and grasslands.	May-October	None. CNDDDB records of this species exist for the Seller Service Area. Not likely to occur in rice fields; no suitable habitat is present (i.e. alkali areas).
Panoche pepper-grass <i>Lepidium jaredii</i> <i>ssp. album</i>	-/-/ 1B.2	Fresno, San Benito, and San Luis Obispo Counties.	Valley and foothill grassland. White or grey clay lenses on steep slopes. Incidental in alluvial fans and washes. Clay and gypsum-rich soils 65 - 910m asl.	February - June	None. Panoche pepper-grass has previously been documented within the Buyer Service Area. The proposed Transfers would not impact suitable habitat for this species.
Peruvian dodder <i>Cuscuta obtusiflora</i> <i>var. glandulosa</i>	-/-/ 2.2	Known from California, Baja California, Sonora and Texas. Within California records exist from Butte, Los Angeles, Merced, Sacramento, San Bernardino, Sonoma and Sutter Counties.	Marshes and swamps (freshwater). Freshwater marsh 15 - 280m asl.	July - October	None. CNDDDB records of this species exist for the Seller Service Area. Peruvian dodder is unlikely to become established within rice fields.

Appendix I
Special-Status Animals and Plants with Potential to Occur in the Area of Analysis

Common Name <i>Scientific name</i>	Special Status* (F/S/RPR)	Distribution	Habitat Association	Blooming Period	Potential Impact
Pincushion navarretia <i>Navarretia myersii</i> <i>ssp. myersii</i>	-/-1B.1	Alamador, Calaveras, Merced, Placer, and Sacramento Counties.	Vernal pools (often acidic).	May	None. Previously documented in the Seller Service Area. No vernal pools would be affected by Transfers.
pink creamsacs <i>Castilleja rubicundula</i> ssp. <i>rubicundula</i>	-/- 1B.2	Butte, Contra Costa, Colusa, Glenn, Lake, Napa, Plumas, San Benito, Santa Clara, and Shasta Counties.	Chaparral, meadows and seeps, valley and foothill grassland. Openings in chaparral or grasslands. On serpentine 20 - 900m asl.	April - June	None. Pink creamsacs has been previously documented within the Buyer Service Area. No impacts to suitable habitat for this species are anticipated.
Point Reyes bird's-beak <i>Chloropyron maritimum</i> ssp. <i>palustre</i>	-/- 1B.2	California and Oregon. Within California it occurs in Alameda, Humboldt, Marin, Santa Clara, San Francisco, San Mateo, and Sonoma Counties.	Coastal salt marsh, usually in coastal salt marsh with Salicornia, Distichlis, Jaumea, Spartina, etc. 0 - 15m.	June - October	None. CNDDDB records of this species exist for the Buyer Service Area. Suitable habitat for this species is not expected to be affected by Transfers.
Presidio clarkia <i>Clarkia franciscana</i>	E/E/1B.1	Alameda and San Francisco Counties	Coastal scrub, valley and foothill grassland. Serpentine outcrops in grassland or scrub 20 - 335m.	May - July	None. Presidio clarkia has been previously observed within the Buyer Service Area. Suitable habitat exists in the area of analysis, but would not be affected by the proposed Transfers.
Recurved larkspur <i>Delphinium recurvatum</i>	-/-1B	Disbursed throughout the Sacramento and Central Valley.	Chenopod scrub, cismontane, valley and foothill grasslands (alkali).	March-June	None. According to the CNDDDB this species has been previously recorded in the Buyer Service Area. Suitable habitat exists (i.e. alkali areas) in the area of analysis, but would not be affected by the proposed Transfers.

Long-Term Water Transfers
Final EIS/EIR

Common Name <i>Scientific name</i>	Special Status* (F/S/RPR)	Distribution	Habitat Association	Blooming Period	Potential Impact
Red Bluff dwarf rush <i>Juncus leiospermus</i> <i>var. leiospermus</i>	-/-1B.1	Butte, Placer, Shasta, and Tehama Counties.	Chaparral, valley and foothill grassland, cismontane woodlands, vernal pools. Vernal mesic sites. Sometimes on edges of vernal pools 30 - 1020m asl. The species has also been documented within intermittent drainages and in areas with pocket gopher and ground squirrel activity (BRCP 2011).	March - May	Low. Red Bluff dwarf rush has been previously documented within the Seller Service Area. Given that the species has some tolerance for disturbance, is a low potential for red bluff dwarf rush to establish within rice fields, which may represent marginal habitat.
Red Hills soaproot <i>Chlorogalum grandiflorum</i>	-/-1B.2	Amador, Butte, Calaveras, El Dorado, Placer and Tuolumne Counties.	Cismontane woodland, chaparral, lower montane coniferous forest. Occurs frequently on serpentine or gabbro, but also on non-ultramafic substrates, often on historically disturbed sites.	May - June	None. CNDDDB records of this species exist within the Seller Service Area. This species is not expected to occur within rice fields due to lack of suitable habitat (i.e., serpentine areas).
Red mountain catchfly <i>Silene campanulata</i> <i>ssp. campanulata</i>	-/E/1B	Found in Colusa, Glenn, Mendocino, Shasta, Tehama, and Trinity Counties.	Chaparral and lower montane coniferous forest, usually serpentine and rocky.	April-July	None. There is a CNDDDB occurrences in the vicinity, within counties in the area of analysis. However this species is not likely to occur in rice fields due to lack of suitable habitat.
robust spineflower <i>Chorizanthe robusta</i> <i>var. robusta</i>	E/-/1B.1	Alameda, Monterey, Marin, Santa Clara, Santa Cruz, San Francisco, and San Mateo Counties.	Cismontane woodland, coastal dunes, coastal scrub. Sandy terraces and bluffs or in loose sand 3 - 120m asl.	April - September	None. Robust spineflower has been documented within the Buyer Service Area. Transfers are not expected to affect suitable habitat for this species.
rock sanicle <i>Sanicula saxatilis</i>	-/- 1B.2	Contra Costa and Santa Clara Counties.	Broadleaved upland forest, chaparral, valley and foothill grassland. Bedrock outcrops and talus slopes in chaparral or oak woodland habitat 625 - 1215m asl.	April - May	None. CNDDDB records of this species exist within the Buyer Service Area. Suitable habitat for rock sanicle is not expected to be affected by Transfers.

Appendix I
Special-Status Animals and Plants with Potential to Occur in the Area of Analysis

Common Name <i>Scientific name</i>	Special Status* (F/S/RPR)	Distribution	Habitat Association	Blooming Period	Potential Impact
round-leaved filaree <i>California macrophylla</i>	-/1B.1	California, Baja California, Oregon.	Cismontane woodland, valley and foothill grassland. Clay soils 15 - 1200m asl.	March - May	None. Round-leaved filaree has been previously documented within both the Buyer and Seller Service Areas. No Transfers-related impacts to suitable habitat for the species are anticipated.
Sacramento Orcutt grass <i>Orcuttia viscida</i>	E/E/1B.1	Valley grasslands and freshwater wetlands.	Vernal pools.	May-June	None. CNDDDB records of this species exist for the Seller Service Area. Sacramento Orcutt grass is not likely to occur in rice fields due to lack of suitable habitat (i.e. vernal pools).
saline clover <i>Trifolium hydrophilum</i>	-/1B.2	California's Central coast and Bay Area.	Marshes and swamps, valley and foothill grassland, vernal pools. Mesic, alkaline sites 0 - 300m asl.	April - June	Low. Records of saline clover exist within both the Buyer and Seller Service Areas. Rice fields may represent marginally suitable habitat for this species. There is a low potential for impacts within the Seller Service Area (Colusa, Solano, and Yolo Counties).
San Benito pentachaeta <i>Pentachaeta exilis</i> <i>ssp. aeolica</i>	-/1B.2	Monterey, San Benito, and Santa Clara Counties.	Cismontane woodland, valley and foothill grassland. Grassy areas from 635 - 855m asl.	March - May	None. This species has previously been documented within the Buyer Service Area. No suitable habitat for this species would be impacted by the proposed Transfers.

Long-Term Water Transfers
Final EIS/EIR

Common Name <i>Scientific name</i>	Special Status* (F/S/RPR)	Distribution	Habitat Association	Blooming Period	Potential Impact
San Francisco Bay spineflower <i>Chorizanthe cuspidata</i> var. <i>cuspidata</i>	-/- 1B.2	Alameda, Marin, San Francisco, San Mateo, and Sonoma Counties.	Coastal bluff scrub, coastal dunes, coastal prairie, coastal scrub. Sandy soil on terraces and slopes 5 - 550m asl.	April - August	None. San Francisco Bay spineflower has been observed within the Buyer Service Area. No impacts to suitable habitat for this species are anticipated in association with the proposed Transfers.
San Francisco collinsia <i>Collinsia multicolor</i>	-/- 1B.2	Monterey, Marin, Santa Clara, Santa Cruz, San Francisco, and San Mateo Counties.	Closed-cone coniferous forest, coastal scrub. On decomposed shale (mudstone) mixed with humus 30 - 250m asl.	March - May	None. This species has been documented within the Buyer Service Area. No impacts to suitable habitat are expected.
San Francisco popcorn-flower <i>Plagiobothrys diffusus</i>	-/E/1B.1	Alameda, Santa Cruz, San Francisco, and San Mateo Counties.	Valley and foothill grassland, coastal prairie. Historically known from grassy slopes with marine influence 60 - 485m asl.	March - June	None. San Francisco popcorn-flower has been observed within the Buyer Service Area. No impacts to suitable habitat for this species are anticipated in association with the proposed Transfers.
San Joaquin spearscale <i>Atriplex joaquiniana</i>	-/-1B.2	Western Central Valley and valleys of adjacent foothills.	Alkali grasslands, and alkali scrub.	April-September	None. Has been previously documented within both the Buyer and Seller Service Areas. Not likely to occur in rice fields, no suitable habitat present (i.e. alkali areas).
San Joaquin woollythreads <i>Monolopia congdonii</i>	E/-/1B.2	Fresno, Kings, Kern, Santa Barbara, San Benito, San Luis Obispo, and Tulare Counties.	Chenopod scrub and valley and foothill grassland. Alkaline or loamy plains, sandy soils 60 - 800m asl.	February - May	None. San Joaquin woollythreads was previously documented within the Buyer Service Area. No impacts to suitable habitat are anticipated.

Special-Status Animals and Plants with Potential to Occur in the Area of Analysis

Common Name <i>Scientific name</i>	Special Status* (F/S/RPR)	Distribution	Habitat Association	Blooming Period	Potential Impact
Sanford's arrowhead <i>Sagittaria sanfordii</i>	-/-1B	Central Valley.	Freshwater marshes, shallow streams, and ditches.	May-August	Moderate. Sanford's arrowhead has been previously documented within the Seller Service Area. Not likely to establish in rice fields, but ditches represent suitable habitat. There is a moderate potential that this species would be affected by the proposed Transfers.
Santa Clara red ribbons <i>Clarkia concinna</i> <i>ssp. automixa</i>	-/- 4.3	Alameda and Santa Clara Counties.	Cismontane woodland, chaparral on slopes and near drainages 90-970m asl.	April - July	None. CNDDDB records for this species exist for the Buyer Service Area. No suitable habitat for this species should be affected by Transfers.
Santa Clara Valley dudleya <i>Dudleya abramsii</i> <i>ssp. setchellii</i>	E/- 1B.1	Santa Clara County.	Valley and foothill grassland, cismontane woodland. On rocky serpentine outcrops and on rocks within grassland or woodland 80 - 335m asl.	April - October	None. Santa Clara Valley dudleya has been previously documented within the Buyer Service Area. Suitable habitat for this species would not be impacted by the proposed Transfers.
Santa Cruz tarplant, <i>Holocarpha</i> <i>macradenia</i>	T/E/1B.1	Alameda, Contra Costa, Monterey, Marin, Santa Cruz, and Solano Counties.	Coastal prairie, valley and foothill grassland. Light, sandy soil or sandy clay, often with non-natives 10 - 260masl.	June - October	None. Santa Cruz tarplant has been observed within the Buyer Service Area, according to CNDDDB records. No impacts to suitable habitat are anticipated.
Santa Cruz Mountains beardtongue <i>Penstemon rattanii</i> <i>var. kleei</i>	-/- 1B.2	Santa Clara and Santa Cruz Counties	Chaparral, lower montane coniferous forest. Sandy shale slopes, sometimes in the transition between forest and chaparral 400 - 1100m asl.	May - June	None. This species has been observed within the Buyer Service Area. No suitable habitat would be affected by Transfers.

Long-Term Water Transfers
Final EIS/EIR

Common Name <i>Scientific name</i>	Special Status* (F/S/RPR)	Distribution	Habitat Association	Blooming Period	Potential Impact
Santa Cruz Mountains pussypaws <i>Calyptidium parryi</i> var. <i>hesseae</i>	-/- 1B.1	Monterey, Santa Clara, Santa Cruz, San Luis Obispo, and Stanislaus Counties.	Chaparral, cismontane woodland, sandy or gravelly openings 305 - 1530m asl.	May - August	None. CNDDDB records of Santa Cruz Mountains pussypaws exist for the Buyer Service Area. Suitable habitat for this species is not expected to be affected by Transfers.
Santa Cruz tarplant, <i>Holocarpha macradenia</i>	T/E/1B.1	Alameda, Contra Costa, Monterey, Marin, Santa Cruz, and Solano Counties.	Coastal prairie, valley and foothill grassland. Light, sandy soil or sandy clay, often with non-natives 10 - 260masl.	June - October	None. Santa Cruz tarplant has been observed within the Buyer Service Area, according to CNDDDB records. No impacts to suitable habitat are anticipated.
Scadden Flat checkerbloom <i>Sidalcea stipularis</i>	-/E/ 1B.1	Nevada County. Known from two occurrences near Grass Valley.	Marshes and swamps. Typical habitat includes montane marshes fed by springs 700 - 740m asl.	July - August	None. This species has been previously documented within the Seller Service Area. It is not likely to establish in rice fields due to lack of suitable habitat (i.e. montane marsh).
Sharsmith's harebell <i>Campanula sharsmithiae</i>	-/- 1B.2	Santa Clara and Stanislaus Counties.	Chaparral. Serpentine barrens 480 - 1820m asl.	April - June	None. Sharsmith's harebell has been observed within the Buyer Service Area. No impacts to suitable habitat for this species are expected.
Sharsmith's onion <i>Allium sharsmithiae</i>	-/- 1B.3	Alameda, Santa Clara, and Stanislaus Counties.	Cismontane woodland. Rocky, serpentine slopes 400 - 1200m asl.	March - May	None. CNDDDB records for this species occur within the Buyer Service Area. Suitable habitat for this species should not be impacted by the proposed Transfers.

Special-Status Animals and Plants with Potential to Occur in the Area of Analysis

Common Name <i>Scientific name</i>	Special Status* (F/S/RPR)	Distribution	Habitat Association	Blooming Period	Potential Impact
Sheldon's sedge <i>Carex sheldonii</i>	-/-/2.2	Occurs in California, Idaho, Nevada, Oregon, Utah and Washington. Within California the species occurs in Lassen, Modoc, Placer, and Plumas Counties.	Lower montane coniferous forest, marshes and swamps, riparian scrub. Mesic sites along creeks and in wet meadows 1065 - 1755m asl.	May - August	None. Sheldon's sedge has been observed within the Seller Service Area. Although rice fields may provide the appropriate moisture conditions, this species occurs at very high elevations and is therefore not expected to be impacted by the proposed Transfers.
shining navarretia <i>Navarretia nigelliformis</i> ssp. <i>radians</i>	-/-/1B.2	Alameda, Contra Costa, Fresno, Merced, Monterey, San Benito, San Joaquin, and San Luis Obispo Counties.	Cismontane woodland, valley and foothill grassland, and vernal pools 200 - 1000m asl. Known from grassland, and may not necessarily occur in vernal pools.	April - July	None. Previous CNDDDB records of shining navarretia exist for the Seller Service Area. This species is unlikely to establish within rice fields due to lack of suitable habitat (i.e., vernal pools and native grassland).
Sierra blue grass <i>Poa sierrae</i>	-/-/1B.3	Butte, Madera, Nevada, Placer, Plumas, Shasta Counties.	Lower montane coniferous forest. Shady, moist, rocky slopes often in canyons 365 - 1160m asl.	April - June	None. This species has been documented within the Seller Service Area. This species is not likely to be impacted, given that it requires shaded rocky slope habitat not provided in rice fields.
showy golden madia <i>Madia radiata</i>	-/-/1B.1	Contra Costa, Fresno, Kings, Kern, Monterey, Santa Barbara, San Benito, Santa Clara, San Joaquin, San Luis Obispo, and Stanislaus Counties.	Valley and foothill grassland, cismontane woodland, chenopod scrub. Mostly on adobe clay in grassland or among shrubs 25 - 1125m asl.	March - May	None. Showy golden madia has been observed within the Buyer Service Area. No project impacts to suitable habitat for this species are anticipated.

Long-Term Water Transfers
Final EIS/EIR

Common Name <i>Scientific name</i>	Special Status* (F/S/RPR)	Distribution	Habitat Association	Blooming Period	Potential Impact
Slender Orcutt grass <i>Orcuttia tenuis</i>	T/E/1B.1	Northern Sacramento Valley, Pit River Valley; isolated populations in Lake and Sacramento Counties.	Vernal pools.	May-October	None. The CNDDDB contains records of slender Orcutt grass in the Seller Service Area. However, this species is not likely to occur in rice fields due to lack of suitable habitat (i.e. vernal pools).
slender-leaved pondweed <i>Stuckenia filiformis</i>	-/- 2.2	Occurs in California, Arizona, Nevada, Oregon, and Washington.	Marshes and swamps. Shallow, clear water of lakes and drainage channels 15 - 2310m asl.	May - July	None. Slender-leaved pondweed has been previously documented within the Buyer Service Area. It is not expected to occur within rice fields in the Seller Service Area given the lack of suitable natural lake and stream habitat.
slender silver moss <i>Anomobryum julaceum</i>	-/- 2.2	California and Oregon. Within California it occurs in Butte, Contra Costa, Humboldt, Los Angeles, Mariposa, Santa Barbara, Santa Cruz, Shasta, and Sonoma Counties.	Broadleafed upland forest, lower montane coniferous forest, north coast coniferous forest. Grows on damp rocks and soil in acidic substrates and on roadcuts 100 - 1000m asl.	--	None. CNDDDB records of slender silver moss exist for the Buyer Service Area. Suitable habitat for this species is not expected to be affected by Transfers.
smooth lessingia <i>Lessingia micradenia</i> var. <i>glabrata</i>	-/- 1B.2	Santa Clara County.	Chaparral. Serpentine often on roadsides 120 - 485m asl.	July - November	None. This species has been previously documented within the Buyer Service Area. No impacts to chaparral or serpentine areas are anticipated.

Special-Status Animals and Plants with Potential to Occur in the Area of Analysis

Common Name <i>Scientific name</i>	Special Status* (F/S/RPR)	Distribution	Habitat Association	Blooming Period	Potential Impact
Soft bird's beak <i>Cordylanthus mollis</i> <i>ssp. mollis</i>	E/R/1B.2	Located in Contra Costa, Marin, Napa, Sacramento, Solano, and Sonoma Counties.	Coastal salt marshes and swamps.	July-November	None. CNDDDB occurrences exist for the Buyer Service Area, however this species is not likely to be affected by Transfers due to lack of suitable habitat (i.e. coastal salt marshes).
stinkbells <i>Fritillaria agrestis</i>	-/-/ 4.2	Occurs in Central and Northern California, including Alameda, Contra Costa, Fresno, Kern, Mendocino, Merced, Monterey, Mariposa, Placer, Sacramento, Santa Barbara, San Benito, Santa Clara, Santa Cruz, San Luis Obispo, San Mateo, Stanislaus, Tuolumne, Ventura, and Yuba Counties.	Cismontane woodland, chaparral, valley and foothill grassland. Sometimes on serpentine, mostly in non-native grassland or in grassy openings in clay soil 95 - 890m asl.	March - June	None. This species has been documented within both the Buyer and the Seller Service Areas. No impacts to suitable habitat for stinkbells are anticipated.
Succulent owl's clover <i>Castilleja campestris</i> ssp. <i>succulenta</i>	T/E/1B.2	Fresno, Madera, Merced, Mariposa, San Joaquin, and Stanislaus Counties.	Vernal pools.	April-May	None. Succulent owl's clover has been documented in the Seller Service Area, however this species is not likely to occur in rice fields due to lack of suitable habitat (i.e. vernal pools).

Long-Term Water Transfers
Final EIS/EIR

Common Name <i>Scientific name</i>	Special Status* (F/S/RPR)	Distribution	Habitat Association	Blooming Period	Potential Impact
Suisun Marsh aster <i>Symphyotrichum lentum</i>	-/- 1B.2	Contra Costa, Napa, Sacramento, San Joaquin, Solano, and Yolo Counties.	Saline and freshwater marshes and swamps. Most often seen along sloughs with Phragmites, Scirpus, blackberry, Typha, etc at 0-3m asl.	May - November	None. This species has been previously documented within both the Buyer and Seller Service Areas. This species is not expected to occur within rice fields given its sensitivity to habitat alteration and agricultural amendments. Environmental commitments would require that downstream flows are maintained, such that no impacts are anticipated in the natural habitats for the species.
talus fritillary <i>Fritillaria falcata</i>	-/- 1B.2	Alameda, Monterey, San Benito, Santa Clara, and Stanislaus Counties.	Chaparral, cismontane woodland, lower montane coniferous forest. On shale, granite, or serpentine talus 300 - 1525m asl.	March - May	None. Talus fritillary has been observed within the Buyer Service Area. Suitable habitat for this species is not expected to be affected.
Temblor buckwheat <i>Eriogonum temblorense</i>	-/- 1B.2	Fresno, Kern, Monterey, and San Luis Obispo Counties.	Valley and foothill grassland. Barren clay or sandstone substrates 300 - 1000m asl.	April - September	None. Records of temblor buckwheat exist within the Buyer Service Area. Transfers are not expected to impact any suitable habitat for this species.
Tiburon buckwheat <i>Eriogonum luteolum var. caninum</i>	-/- 1B.2	Alameda, Contra Costa, Marin, Sonoma Counties.	Chaparral, valley and foothill grassland, cismontane woodland, coastal prairie. Serpentine soils on sandy to gravelly sites 0 - 700m asl.	May - September	None. Has been observed within the Buyer Service Area. No impacts to suitable habitat for Tiburon buckwheat are expected.

Special-Status Animals and Plants with Potential to Occur in the Area of Analysis

Common Name <i>Scientific name</i>	Special Status* (F/S/RPR)	Distribution	Habitat Association	Blooming Period	Potential Impact
Tiburon paintbrush <i>Castilleja affinis</i> <i>ssp. neglecta</i>	E/T/ 1B.2	Marin, Napa, and Santa Clara Counties.	Valley and foothill grassland. Rocky serpentine sites 75 - 400m asl.	April - June	None. CNDDDB records of Tiburon paintbrush exist within the Buyer Service Area. Transfers are not expected to impact suitable habitat for this species.
Tracy's eriastrum <i>Eriastrum tracyi</i>	-/R/ 1B.2	Colusa, Fresno, Glenn, Kern, Santa Clara, Shasta, Stanislaus, Tehama, Trinity, and Tulare Counties.	Chaparral, cismontane woodland. Gravelly shale or clay, often in open areas 315 - 760m asl.	June - July	None. Previously documented within the Buyer Service Area. No impacts to suitable habitat for this species are expected.
vernal pool smallscale <i>Atriplex persistens</i>	-/-/ 1B.2	Colusa, Glenn, Madera, Merced, Solano, Stanislaus, and Tulare Counties.	Vernal pools. Alkaline vernal pools 10 - 115m asl.	June - October	None. Vernal pool smallscale has been documented within the Seller Service Area. This species is not likely to establish within rice fields given the lack of vernal pool and alkaline habitat.
western leatherwood <i>Dirca occidentalis</i>	-/-/ 1B.2	Alameda, Contra Costa, Marin, Santa Clara, San Mateo, and Sonoma Counties.	Broadleaved upland forest, chaparral, closed-cone coniferous forest, cismontane woodland, north coast coniferous forest, riparian forest, riparian woodland. On mesic sites on brushy slopes 30-550m asl within mixed evergreen and foothill woodland communities.	January - April	None. CNDDDB records of this species exist within the Buyer Service Area. Suitable habitat for western leatherwood is not expected to be affected by Transfers.
white-flowered rein orchid <i>Piperia candida</i>	-/-/ 1B.2	California, Oregon, Washington. Within California the species occurs in Del Norte, Humboldt, Mendocino, Santa Clara, Santa Cruz, Siskiyou, San Mateo, Sonoma, and Trinity Counties.	North coast coniferous forest, lower montane coniferous forest, broad leafed upland forest. Coast ranges from Santa Cruz County North on serpentine. Forest duff, mossy banks, rock outcrops and muskeg 0 - 1200m asl.	March - September	None. White-flowered rein orchid has been documented within the Buyer Service Area. However, no impacts to suitable habitat for this species are anticipated in the Buyer Service Area.

Long-Term Water Transfers
Final EIS/EIR

Common Name <i>Scientific name</i>	Special Status* (F/S/RPR)	Distribution	Habitat Association	Blooming Period	Potential Impact
woodland woollythreads <i>Monolopia gracilens</i>	-/-/ 1B.2	Alameda, Contra Costa, Monterey, Santa Clara, Santa Cruz, San Luis Obispo, and San Mateo Counties.	Chaparral, valley and foothill grassland (serpentine), cismontane woodland, broad leafed upland forests, north coast coniferous forest. Grassy sites in openings, sandy to rocky soils. Often seen on serpentine after burns but may have only a weak affinity to serpentine.	February - July	None. Has been observed within the Buyer Service Area. No impacts to suitable habitat for woodland woolly threads are anticipated.
woolly rose-mallow <i>Hibiscus lasiocarpus</i> var. <i>occidentalis</i>	-/-/ 1B.2	Butte, Contra Costa, Colusa, Glenn, Sacramento, San Joaquin, Solano, Sutter, and Yolo Counties.	Marshes and swamps (freshwater). Moist, freshwater-soaked river banks and low peat islands in sloughs. Known from the Delta watershed 0 - 150m asl.	June - September	None. Previously observed in the Buyer Service Area. Not likely to establish in rice fields given the lack of suitable habitat (marsh and swamp). This species is sensitive to habitat disturbance and agricultural amendments.
Wright's trichocoronis <i>Trichocoronis wrightii</i> var. <i>wrightii</i>	-/-/ 2.1	Colusa, Merced, Riverside, San Joaquin, and Sutter Counties.	Marshes and swamps, riparian forest, meadows and seeps, vernal pools. Mud flats of vernal lakes, drying river beds and alkali meadows 5 - 435m asl.	May - September	Low. According to the CNDDDB, this species has previously been recorded in the Seller Service Area. Rice fields are not expected to support this species given the lack of suitable natural habitats.

RPR=California Rare Plant Rank

1B= Rare, threatened, or endangered in California and elsewhere

2= Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere

3= Plants about which we need more information - A review list

*Status explanations:

F=Federal

E= listed as endangered under the federal Endangered Species Act

T= listed as threatened under the federal Endangered Species Act

S=State

E=Endangered

T=Threatened

R=Rare

SSC=Species of Special Concern